DocuWare Signature Service

How to connect DocuWare to DocuSign as an external signature provider

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1 DocuWare Signature Service

1.1 Objective of this document

This document is intended for specialists in setting up and configuring DocuWare systems. It describes how the external signature provider DocuSign is connected to DocuWare so that documents within a DocuWare workflow can be provided with an electronic signature.

For more information on electronic signatures in general, signature methods with DocuSign, and licensing, see the Electronic Signature White Paper.

1.2 Overview DocuWare Signature Service

The DocuWare Signature Service is a web service that can be integrated into workflow activities. Documents in a DocuWare workflow can be transferred to an external signature service provider for example DocuSign. DocuSign verifies the identity of the signer and returns the signed document with the signature certificate to DocuWare.

DocuSign signatures are obtained by DocuSign sending the user an email. The email has a button to sign the document, which brings them to the DocuSign interface where they can review and sign the document. The DocuWare Signature Service only supports PDFs – the document is converted as needed. Annotations from the DocuWare document will not be included in the PDF that will be signed. The signed version of the document can either replace the original document or be clipped to the original document. In addition, an index field is updated with a specific value. This value can be a trigger condition for another workflow, for example.

The technical prerequisite for the DocuWare Signature Service is that the workflow server must have an Internet connection to the web service. With DocuWare Cloud, this is always the case; with an on-premises system it may need to be configured accordingly.

DocuSign and DocuWare have worked to ensure that your documents will remain secure during the signing process. Both DocuWare Cloud and DocuSign require SSL to ensure that your document is secure during the signing and after signing processes. Similarly, DocuWare Signature Service requires that any on premises DocuWare installation be configured to use SSL. The documents are secure in an encrypted channel during transit between DocuWare and the signature provider.

The configuration options for the electronic signature, such as the placement of the signature in the document or the integration of multiple signers, are described in Chapter 3 in the service methods.

2 Configure DocuWare to sign documents with DocuSign

To use the DocuWare Signature Service with DocuSign, you sign a service contract with one of them. More information on licensing can be found in the White Paper Electronic Signatures. Employees and Authorized DocuWare Partners (ADPs) can use a demo subscription that DocuSign has provided.

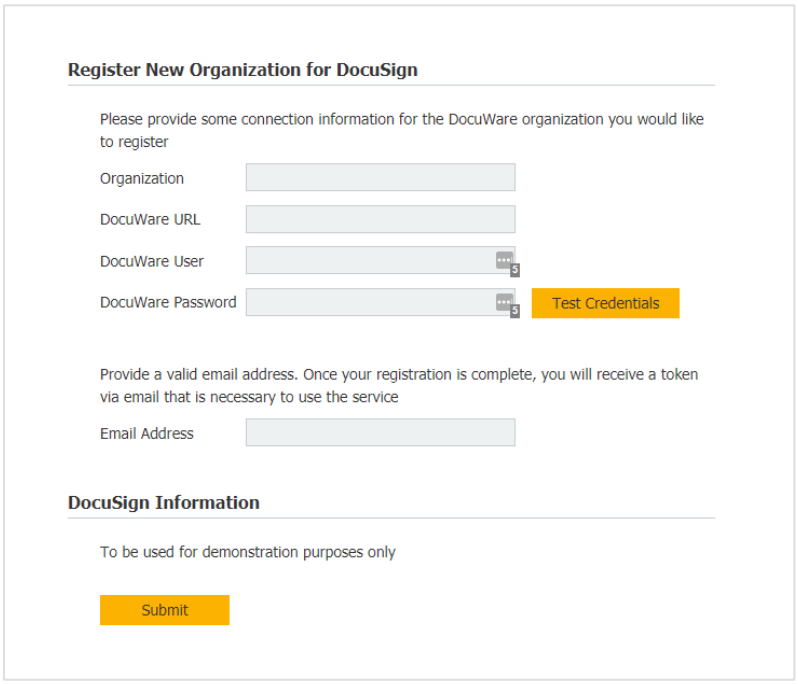
2.1 Register organization with the DocuWare Signature Service

The first step is registering your DocuWare organization with the DocuWare Signature Service. This is necessary so that the DocuWare Signature Service can access the DocuWare organization and perform the DocuWare operations as downloading and updating documents and updating index data. Because the DocuWare Signature Service is a hosted service only, any organization using it must be accessible via the internet.

There are two basic types of registrations: demo and production. The difference is what subscription from DocuSign is used for signing. A production system will require the user to login to their DocuSign subscription as the user they wish to use for sending documents to signers.

2.1.1 Using a demo subscription

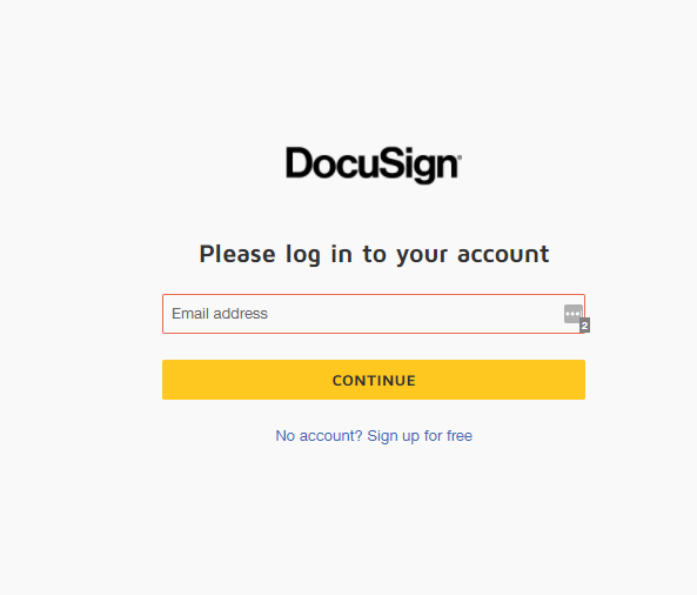
To register an organization for the purposes of demonstrating the service, DocuWare partners and employees will use a demo subscription that DocuSign has provided to DocuWare. DocuWare has provided a web page that you as a partner or as an employee can use to register an organization for demonstrations.



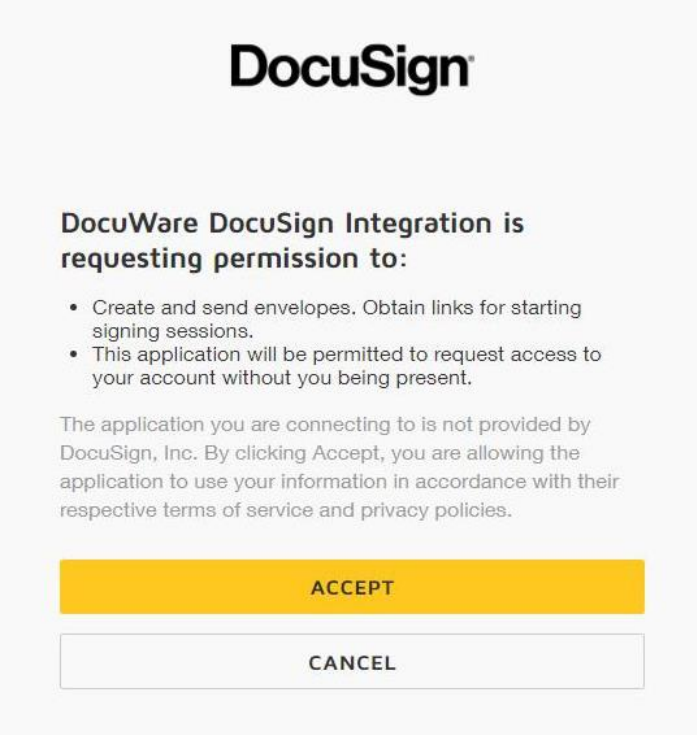
Once submitted, a token will immediately be issued for this organization and sent to the email address in the form. This token is necessary for the web service calls for signature. It is used by the web service in the workflow to look up the information needed to connect to the DocuWare organization. The token can be used in as many workflows as desired. The emails will be sent from a TeamSolutions@docuware.com account from DocuWare's demonstration DocuSign account.

2.1.2 Using a production subscription

To register for a production token, a user must use this web page. They will be asked to log into DocuSign. They should use the credentials for the DocuSign account that they would like to enable DocuWare Signature Service to use to connect to DocuSign on their behalf.



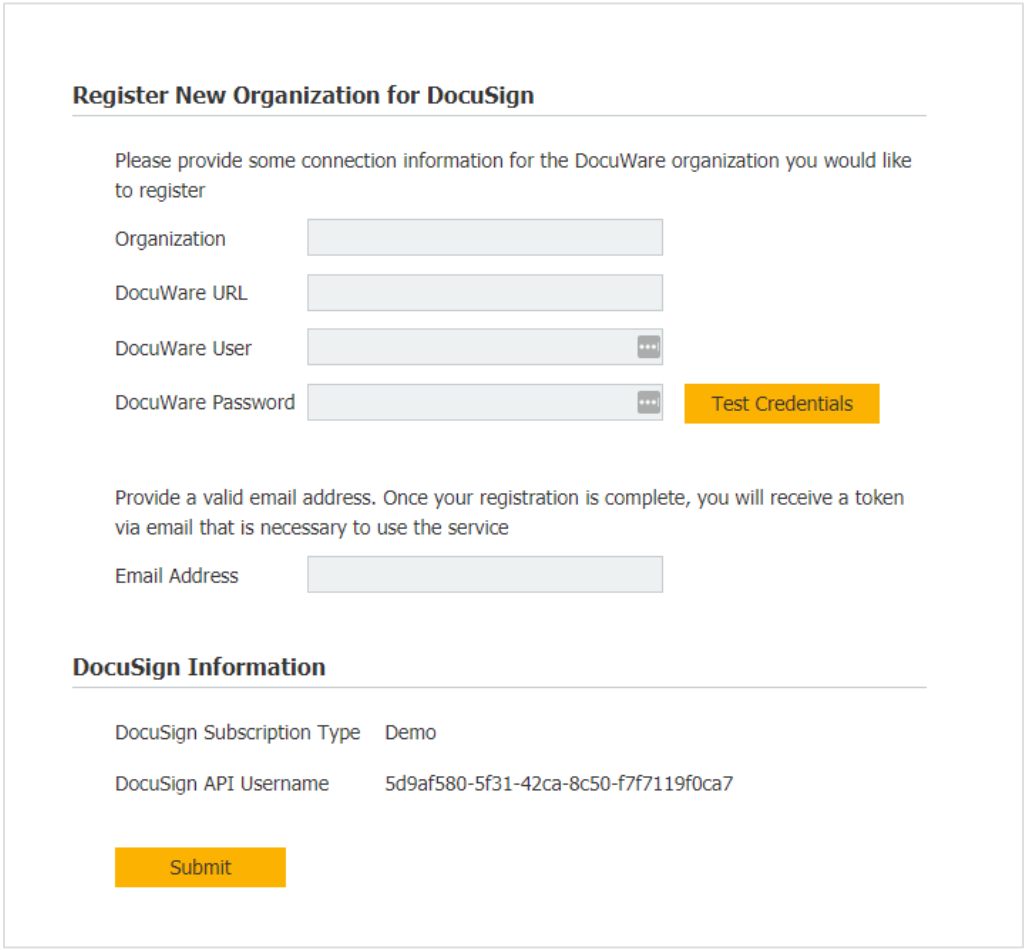
Once the user has successfully logged into DocuSign, they will be redirected to our registration page, seen below.



The successful login and accepting the request shown above will grant the DocuWare Signature Service access to the customer's DocuSign account and enable our service to send documents for signature as the user they provided at login.

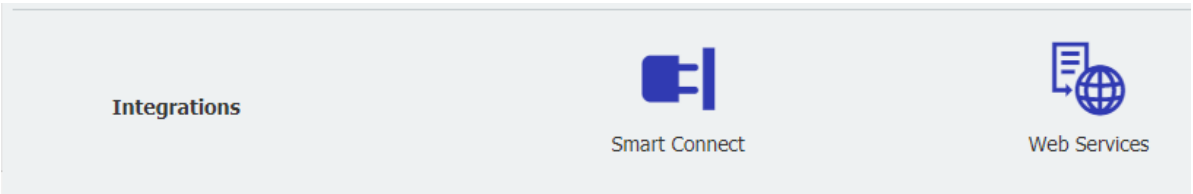
There they must enter their organization, DocuWare URL and provide a DocuWare username and password. Additionally, they must provide a valid email address where they will be emailed the resulting token. They will see some information about their DocuSign account, including the subscription type and the ID of the user they logged in as in the previous step.

If all information is correct, the registration will be completed and they will shortly receive an email with the token issued for their organization.



2.2 Add DocuWare Signature Service as web service

Before configuring your workflow you need to add the service to the available web services in the DocuWare Configuration: https://signature.docuware.cloud/DocuSignSignatureService.svc



2.3 Configuring the signature workflow

The following procedure describes how the document in the workflow is sent to DocuSign for signing and retrieved back:

- Trigger condition happens on a document
- The DocuWare Signature Service only supports PDFs – the document is converted as needed.
- Document is sent to the DocuSign web application
- The user opens an email and hits a button that sends them to DocuSign where they can review the document
- The user may need to meet certain authentication requirements (Access Code, Phone, SMS or Knowledge Based Authentication. Then they can sign the document
- The DocuSign application calls our service and notifies DocuWare that the document was signed.
- DocuWare retrieves the document that has been updated with a signature, both in the metadata and by placing an image of the signature in a specific location of the document.
- The signed version of the document can either replace the original document or be clipped to the original document. In addition, an index field is updated with a specific value. This value can be a trigger condition for another workflow, for example.

2.3.1 Understanding the document structure for placing a signature

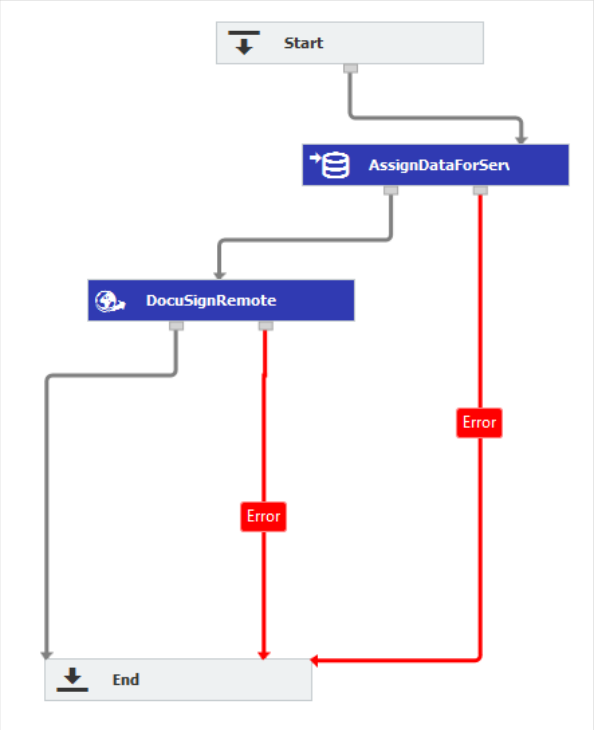
One of the important aspects of creating the electronic signature workflow is being able to place the image of the signature in an appropriate place on the document.

This signature image can be placed on the document in one of two ways:

- **If the document is a consistent structure**, i.e. always 3 pages and the signature should be placed always at the bottom of the third page, then specify in the parameters of the web service the page number and the X, Y coordinates of the signature (the web service uses millimeters). See also chapter 3.
- **If the document is variable in structure**, i.e. an invoice with an unknown number of pages, the signature can move accordingly to a certain piece of text which is defined with the parameter “AnchorText”. The service looks for the matching phrase and can place the signature relative to that text. The signature shown above was placed by finding “Customer signature” and then placing the image below that phrase. It may take some trial and error to find the right anchor text and relative location.

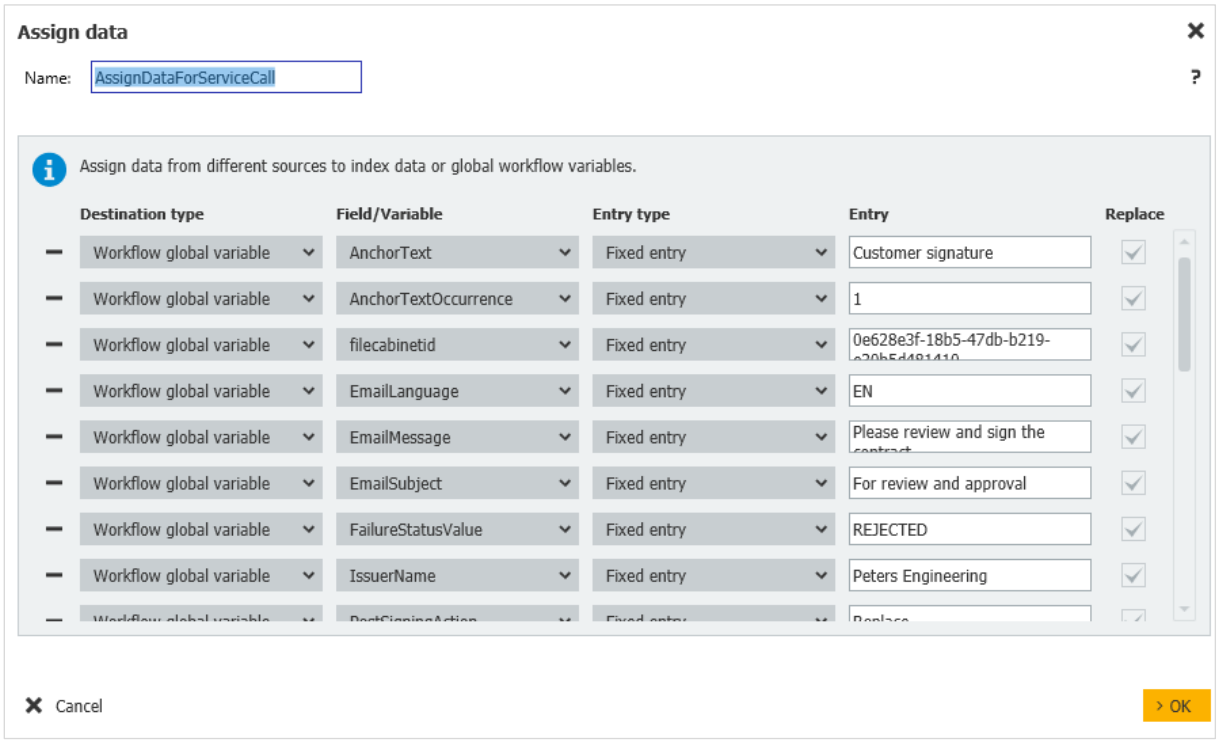
2.3.2 Add workflow activities

The specifics of your workflow will depend on the needs of the use case you are fulfilling. However, a basic recommendation is shown below. Applying a signature to a workflow document requires two workflow activities – "Assign data" and "Web service" (DocuSign below).

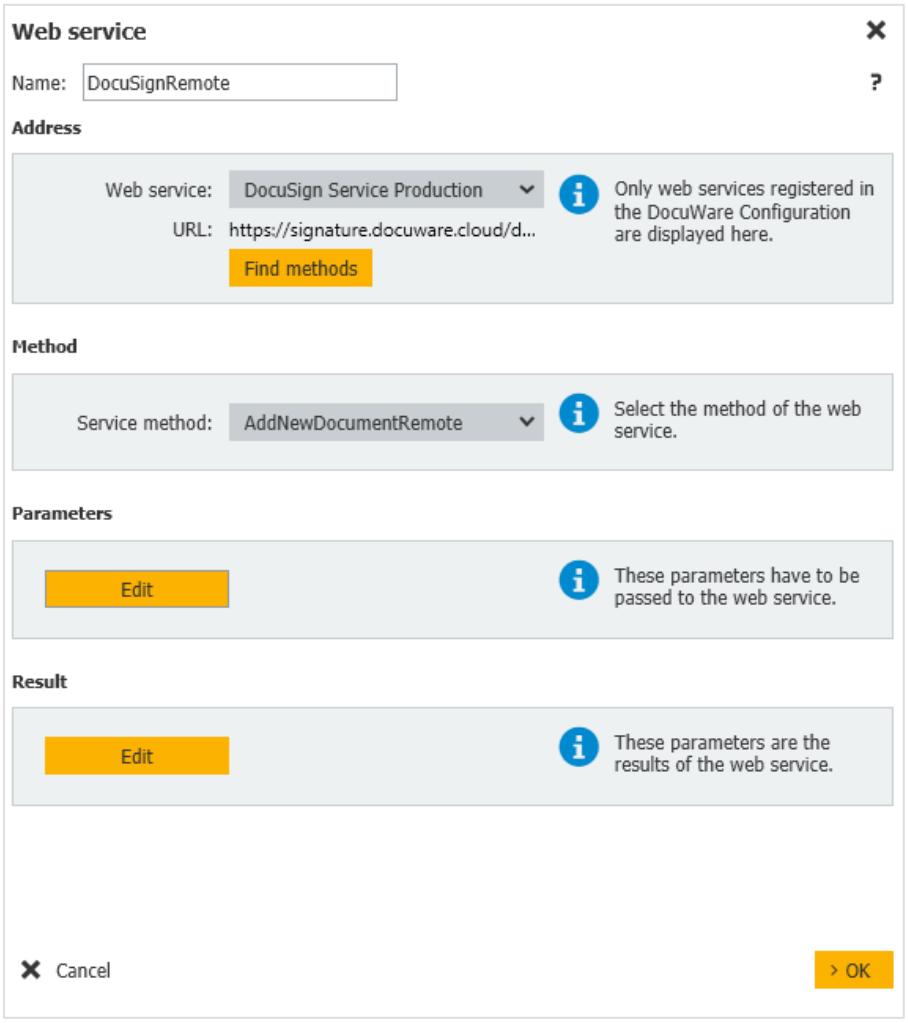


Assign data. First step is applying a workflow activity of the type “Assign data”. The purpose of this step is to create global variables for all the parameters and then assign pieces of data to them for use in calling the web service. It’s best practice to name the global variables the same as the parameter they are intended to represent.

Here is an example. For details and parameters see chapter 3.



Web service. In a Web Service activity, you first select the web service from a list of web services you have set up in the DocuWare Configuration (see chapter 2.4). If you don't see the signature service, configure it there and return to this step. You then select the proper service method.

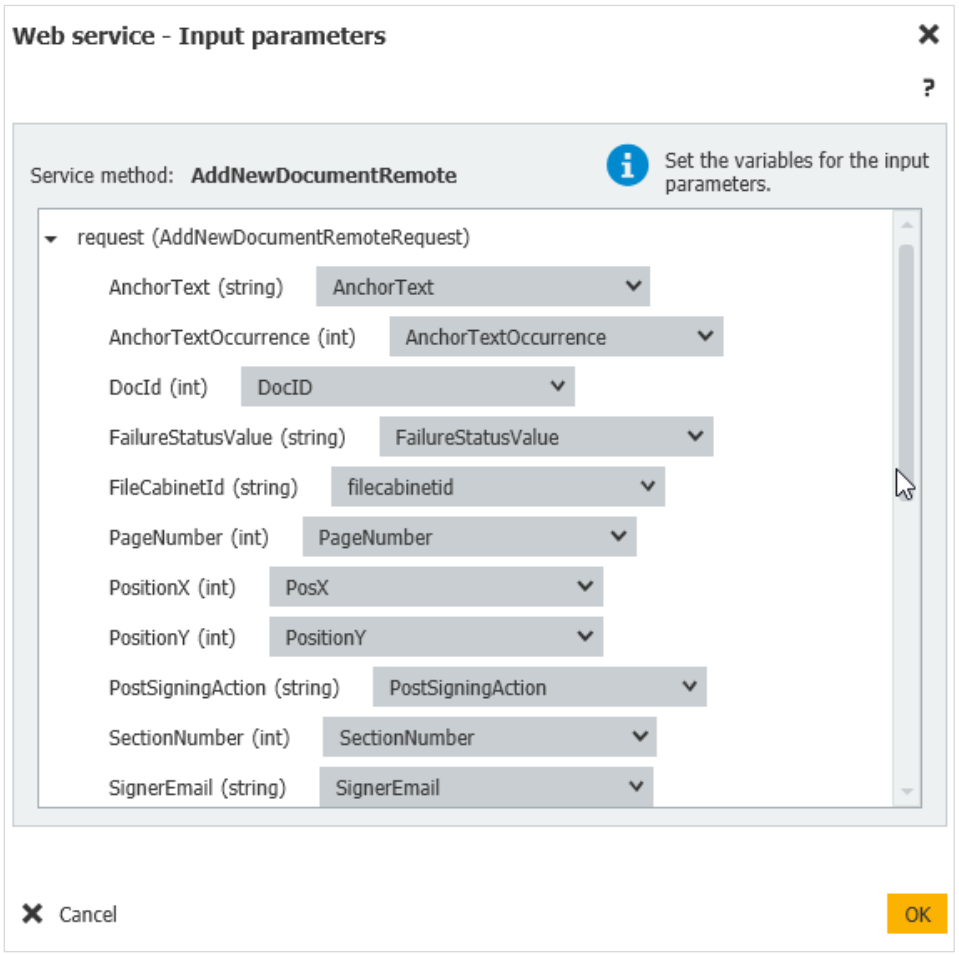


The document can be signed through the DocuSign web application. AddNewDocumentRemote will send the document via email to a user to sign.

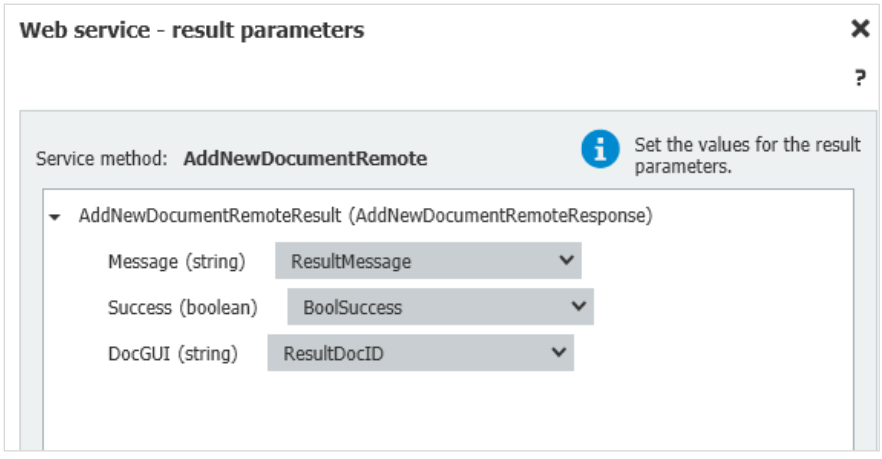
You can see a description of the webservice methods and parameters in chapter 3.

For further information how to configure a DocuWare workflow visit the DocuWare Knowledge Center.

Now, in the parameters, you select the global variables you created for each parameter.



You may also choose to use the result parameters. These can be set to global variables and used to decide the next step in your workflow. For example, if the “Success” result of the web service (found in the success Boolean) is false, you may want to take a different path than if the result is true.



2.3.3 The need for an activity *Wait* in your workflow

The signature service returns directly after the web service call is successful. It's important in this case to include a Wait Activity in your workflow. This will allow the workflow to wait for the document to be signed by the signer(s). Without a wait condition, the workflow for the document may conclude before the document is signed. The most common wait condition is to wait for the value of the index field selected for "StatusFieldName" to change. Then, if the value in the field is now the "SuccessStatusValue", the workflow can proceed with the newly signed document. If the value of the field is now the "FailureStatusValue" the workflow can proceed and handle the case that the signer has declined to sign the document.

3 Service methods and parameters

3.1 Overview service method for web service activity

- URL: https://signature.docuware.cloud/DocuSignSignatureService.svc

  Methods

  - AddNewDocumentRemote
    Used to send a document to the web application DocuSign for remote signature
  - AddNewDocumentMultiSigners
    Used to send a document to the web application DocuSign for remote signature by multiple signers
  - AddNewDocumentMultiPositions
    Used to send a document to the web application DocuSign for remote signature by one signer with multiple signatures and/or tabs for initial tabs placed on the document
  - AddNewClippedDocument
    Used to send multiple sections of a DocuWare document for remote signature by one signer
  - DeleteUnsignedDocuments
    Used to retract a document that has been sent to DocuSign so the document cannot be signed by the user

3.2 Service method AddNewDocumentRemote

Used to send a document to DocuSign for remote signature

URL: https://signature.docuware.cloud/DocuSignSignatureService.svc

Parameters:

- FileCabinetId (string) – GUID of the file cabinet with the document
- DocId (string) - ID of the document to be signed
- Token (string) – token received in the registration step that identifies the customer organization and provides user credentials
- SignerName – name of the person signing the document
- SignerEmail – email address of the signer of the document
- SectionNumber (int) – index of the section within the document to be signed
  - -1 indicates the last section found.
  - 0 or 1 will be the first section.
  - An error will occur if a section is specified that doesn't exist.
- AnchorText (string) – This is the piece of text the service can look for on the document. If specified and not found, an error will occur. If not specified, then the subsequent location information will be absolute, rather than relative to finding a piece of text.
- AnchorTextOccurrence – Which occurrence of the anchor text should be used to be the starting location for placing the signature
  - -1 is the last occurrence.
  - 0 or 1 is the first.
  - Any other number is a specific occurrence.

- PageNumber (int) – page number within the file to start looking for the anchor text. -1 indicates to look on the last page. If no anchor text is specified, it is the absolute page number.
- SizeX (int) – size in millimeters of the width of the signature image
- SizeY (int) – size in millimeters of the height of the signature image
- PositionX (int) – Relative to the left side of the anchor text, this is the horizontal location of the signature image to be placed on the document (millimeters again). Positive numbers are to the right. Negative numbers are to the left.
- PositionY (int) – Relative to the top of the anchor text, this is the vertical location of the signature image to be placed on the document (millimeters again). Positive numbers are down. Negative numbers are up.
- StatusFieldName (string) – This identifies a file cabinet field on the document that will be updated when a document is signed or rejected by the user in DocuSign.
- SuccessStatusValue (string) – This provides the value to be set in the above field when a document is signed.
- FailureStatusValue (string) – This provides a value to be set in the above field when a document is rejected by the user in DocuSign
- DateSignedFieldName (string) – This is an optional parameter that may be used to provide the name of a file cabinet field to hold the date the document was signed. When signed, we will update this field with the date it was signed by the user in DocuSign.
- PostSigningAction (string) – this specifies what is to be done with the signed document after the user signs it in DocuSign. The choices are “ClipBefore”, “ClipAfter” and “Replace”.
- EmailSubject (string) – subject of the email
- EmailMessage (string) – text that is displayed in the contents of the email
- RecipientAuthenticationType (string) – This allows the workflow to specify what type of DocuSign authentication is required to allow a signer to sign a document. See section 2.1 for more information about these authentication types. Valid values are “None”, “AccessCode”, ”Phone”, ”SMS”, ”KBA”
- AccessCode (string) – if the Authentication type is “AccessCode”, this parameter is required. This will be the access code (similar to a password) that will be required to sign the document. The access code must be provided to the signer in a separate communication channel (phone call or email, for example).
- DaysBeforeExpiration (int) – if the value provided is greater than 0, there will be a time limit of this number of days before the document expires. If the time limit is passed, the document will be considered declined. It will be deleted from the DocuSign service and the signer will no longer be able to sign it
- RecipientMayProvideNumber (Boolean) – only for Phone authentication. If set to true, it ignores any value the user sets in the phone number. Then, at the time of signing the signer can provide the number to be called to receive the code by entering it in the DocuSign application.
- IncludeReport (boolean) – this parameter is optional but if provided must have a value of ‘true’ or ‘false’. Setting it to true will append a second PDF to the document after the signed document. This PDF has information regarding the signer and the digital certificate that was added to the document.
- IncludeDateSigned (boolean) – this parameter is optional but when set to “True”, the date signed will be included in the document and the parameters below for locating the date signed will be required.

- PhoneNumber (string) – phone number used for two-factor authentication (use international phone number format, ex. +18455639045) during the signing process
- DateSignedAnchorText (string) – This is the piece of text the service can look for on the document. If specified and not found, an error will occur. If not specified, then the subsequent location information will be absolute, rather than relative to finding a piece of text.
- DateSignedAnchorTextOccurrence – Which occurrence of the anchor text should be used to be the starting location for placing the date signed.
    - -1 is the last occurrence.
    - 0 or 1 is the first.
    - Any other number is a specific occurrence.
- DateSignedPageNumber (int) – page number within the file to start looking for the anchor text. -1 indicates to look on the last page. If no anchor text is specified, it is the absolute page number.
- DateSignedPositionX (int) – relative to the left side of the anchor text, this is the horizontal location of the date signed text be placed on the document (millimeters again). Positive numbers are to the right. Negative numbers are to the left.
- DateSignedPositionY (int) – relative to the top of the anchor text, this is the vertical location of the date signed text to be placed on the document (millimeters again). Positive numbers are down. Negative numbers are up.

3.3 Service method AddNewDocumentMultiSigners

Used to send a document to the DocuSign for remote signature for multiple signers in different locations on one document. Note, the information about the signers and the signing positions in the document are in a delimited list and separated by a value that is specified using a parameter. The examples below will show the use of a comma. The list of parameters reflects the new/changed parameters compared to the AddNewDocumentRemote method. NOTE: The order of the list must be consistent throughout all the parameters.

- MultiValueSeparator (string) – This parameter is required and tells the service how the list of signers and their information will be separated. A common choice is a comma, a caret ^ or a pipe |
- MultiSignerName (string) – this parameter holds the names of the signers of the document. Ex: “Peter Sanders,Bria Florent”
- MultiSignerEmail (string) – this parameter holds the email addresses for the signers. Ex: peter.sanders@peters-engineering.net,brian.florent@peters-engineering.net
- MultiSignerCount (int) – this is the number of signatures being requested
- MultiAnchorText (string) – This parameter holds the anchor texts for the multiple signing locations.
- MultiAnchorTextOccurrence (string) – This parameter holds the anchor texts for the multiple signing locations.
- MultiPageNumber (string) – This holds a delimited list of page numbers where signatures are located
- MultiPositionX (string) – This holds a list of X positions for signature placement.
- MultiPositionY (string) – This holds a list of Y positions for signature placement
- MultiDateSignedAnchorText (string) – This parameter holds the anchor texts for the multiple date signed locations.

- MultiDateSignedAnchorTextOccurrence (string) – This parameter holds the anchor texts for the multiple date signed locations.
- MultiDateSignedPageNumber (string) – This holds a delimited list of page numbers where date signed are located
- MultiDateSignedPositionX (string) – This holds a list of X positions for date signed placement.
- MultiDateSignedPositionY (string) – This holds a list of Y positions for date signed placement
- MultiSignerPhoneNumber (string) – holds a delimited list of phone numbers that can be used for SMS verification.
- OrderedSignature (bool) – When true, the signatures will be requested in the order that they are specified in the above fields. The first signer will receive an email, can sign and then the second signer will be sent an email and may sign, and so on. When false, all signers are notified parallel and may sign in any order. In both cases, the file cabinet is not updated with the signed document until all signatures are obtained.

3.4 Service method AddNewDocumentMultiPositions

Used to send a document to the DocuSign for remote signature for one signer to sign or initial in multiple locations. Note, the information about the signer and the signing positions in the document are in a delimited list and separated by a value that is specified using a parameter. The examples below will show the use of a comma. The list of parameters reflects the new/changed parameters compared to the AddNewDocumentRemote method. NOTE: The order of the list must be consistent throughout all the parameters.

- MultiValueSeparator (string) – This parameter is required and tells the service how the list of signers and their information will be separated. A common choice is a comma, a caret ^ or a pipe |
- MultiInitialCount (int) – this is the number of initials tabs being placed on the document
- MultiInitialAnchorText (string) – This parameter holds the anchor texts for the multiple initials locations.
- MultiInitialAnchorTextOccurrence (int) – This parameter holds the anchor text occurrences (i.e. first, second or third time etc. text occurs in the document) for the multiple initial locations.
- MultiInitialPageNumber (string) – This holds a delimited list of page numbers where initials are located
- MultiInitialPositionX (string) – This holds a list of X positions for initials placement.
- MultiInitialPositionY (string) – This holds a list of Y positions for initials placement
- MultiDateSignedCount (int) – this is the number of date signed tabs being placed on the document
- MultiDateSignedAnchorText (string) – this parameter holds the anchor texts used for placing the multiple date signed tabs
- MultiDateSignedAnchorTextOccurrence (int) – this parameter holds the occurrence of the anchor texts used for placing the multiple date signed tabs
- MultiDateSignedPageNumber (string) – This holds a delimited list of page numbers where date signed are located
- MultiDateSignedPositionX (string) – This holds a list of X positions for date signed placement
- MultiDateSignedPositionY (string) – This holds a list of Y positions for date signed placement
- MultiSignatureCount (int) – this is the number of signature tabs being placed on the document

- MultiSignatureAnchorText (string) – This parameter holds the anchor texts for the multiple signing locations.
- MultiSignatureAnchorTextOccurrence (int) – This parameter holds the anchor text occurrences (i.e. first, second or third time etc. text occurs in the document) for the multiple signature locations.
- MultiSignaturePageNumber (string) – This holds a delimited list of page numbers where signatures are located
- MultiSignaturePositionX (string) – This holds a list of X positions for signature placement.
- MultiSignaturePositionY (string) – This holds a list of Y positions for signature placement

3.5 Service method AddNewClippedDocument

Used to send multiple sections (files within a DocuWare document) of a document to the DocuSign for remote signature for one signer to add a signature, date or initials in one location per section. Note, the information about the sections and the signing positions in the document are in a delimited list and separated by a value that is specified using a parameter. The examples below will show the use of a comma. The list of parameters reflects the new/changed parameters compared to the AddNewDocumentRemote method. NOTE: The order of the list must be consistent throughout all the parameters.

- MultiValueSeparator (string) – This parameter is required and tells the service how the list of signers and their information will be separated. A common choice is a comma, a caret ^ or a pipe |
- MultiAnchorText (string) – This parameter holds the anchor texts for the multiple initials locations.
- MultiAnchorTextOccurrence (int) – This parameter holds the anchor text occurrences (i.e. first, second or third time etc. text occurs in the document) for the multiple initial locations.
- MultiPageNumber (string) – This holds a delimited list of page numbers where initials are located
- MultiPositionX (string) – This holds a list of X positions for initials placement.
- MultiPositionY (string) – This holds a list of Y positions for initials placement
- MultiSectionCount (int) – this is the number of initials tabs being placed on the document
- MultiSectionNumber (string) – This holds a delimited list of sections where signatures are located

3.6 Service methode DeleteUnsignedDocuments

Used to retract a document that has been sent to DocuSign so the document cannot be signed by the user (use case: Whoops, don't let them sign that!).

URL: https://signature.docuware.cloud/DocuSignSignatureService.svc

Parameters:

- FileCabinetId (string) – GUID of the file cabinet with the document
- DocId (string) - ID of the document to be signed
- Token (string) – token received in the registration step that identifies the customer organization and provides user credentials

3.7 What happens after the document is signed or rejected?

After the user logs into DocuSign web application and signs or rejects the document DocuSign notifies our service by calling a REST API that we have built to the specifications of DocuSign.

If the document is signed, DocuWare downloads the document from DocuSign. The parameter “PostSigningAction” determines how the document is handled – clip it before or after the original document or replace it with the new file. We then set the Status Field with the SuccessStatusValue (ex: “Signed”). From here, a workflow can continue. The service then removes the document from DocuSign .

If the document is rejected, we set the value of the StatusField to the FailedStatusValue (ex: “Rejected”). The workflow can use this status to continue. The service then removes the document from DocuSign.