

Signant.no Web service Functional specification

10.03.2020

Version 1.0.7

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Version history

Version	Date	Changes
1.0	2013.11.05	Initial document
1.0.1	2014.03.18	Obsolete : GetPostingStatus.LastReminderDateTime New : PostingAdmin.NotifyByEmail New : StatusDetailsAttachment.StatusDetailsRecipient.LastReminderDateTime
1.0.2	2016.08.19	Small adjustments
1.0.3	2017.01.11	New input parameter: SenderName New output value: Attachment>Recipient>SignatureURL
1.0.4	2018.06.18	New input parameter: UseWidgetOnAllPages
1.0.5	2018.08.22	New feature: Callback
1.0.6	2019.10.14	New feature: RequestEnterpriseSignature
1.0.7	2020.03.10	New Input parameter Recipient>NotifyByEmail

1. About Signant.no

Signant.no is a website created and owned by Maestro Soft AS, it allows persons and companies to sign and exchange documents in a simple and efficient way.

With this web service you will get access to functions to create a request for signature, check the request status, download signed documents and stop or delete the signature request.

After initialization of the signature request, email will be sent to the recipients that will be able to sign requested documents using signant.no webpages.

A callback to the distributors system can be configured to be sent when the posting process is completed.

2. Introduction

2.1 Purpose of this document.

Outline the technical solution for initializing and handling a request for signature using the signant.no WS API.

2.2 Scope of the document

This document is meant to describe available functions and dataflow between customer and signant.no system.

2.3 Definitions, Acronyms and Abbreviations

The following table presents the most significant terms used in this document:

Term	Definition
Signant	Service provider
Distributor	Webservice implementor
Consumer	Company or person using the distributors service
Consumer order	An order, customer or project related to the Consumer
PostingOwner	A person or system that creates the posting.
PostingAdmin	A person or system that has permission to edit and delete the posting.

PostingRecipients	Recipient of signature request
ServiceToService mode	When the external system is automated.
ApplicationToService mode	When personal authentication is required.
AutoActivate	When manual activation is skipped.
AccessToken	A token identifying a valid manually activated authentication session.
SSN	Social security number.
Priority	For controlling the Recipient signing order.
PDF	Portable Document Format, read more at: www.adobe.com/pdf

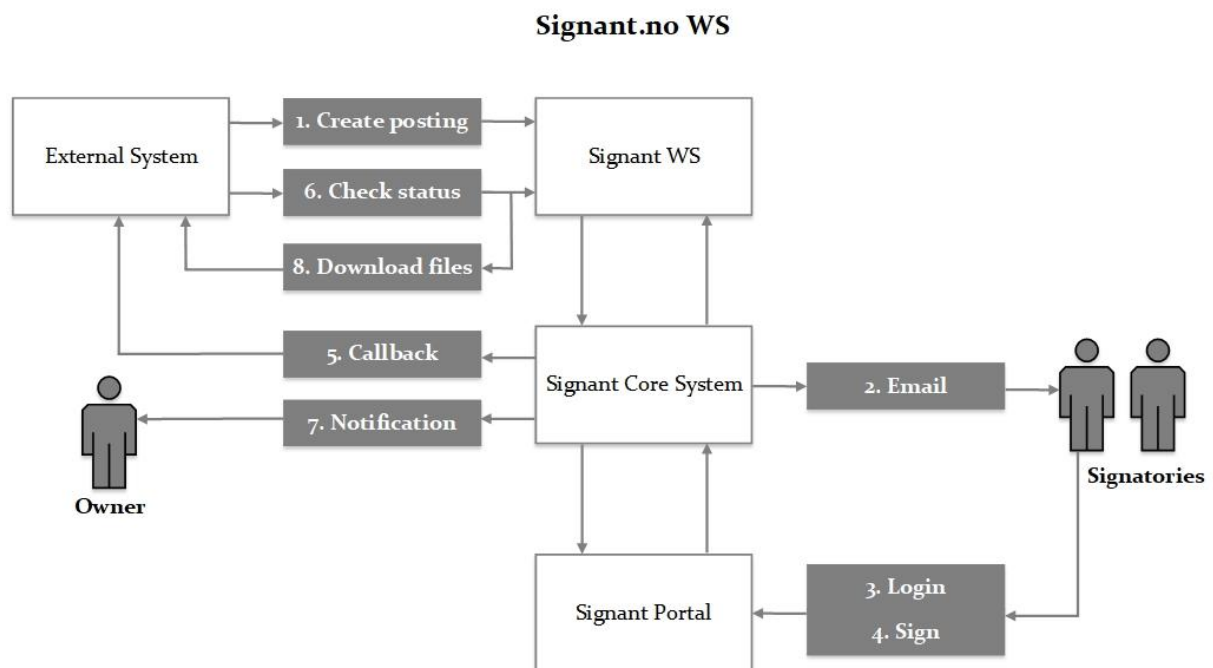
2.4 Roles relationship

The following terms are used for participants from the service provider (Signant) to the end customer:

Signant -> Distributor -> Consumer -> Consumer Order

3. Overview – Request document signature

This image illustrates how different parts of the system work together and in what order they should be used.



3.1 Dataflow

- 1) External system creates a new posting using the signant WS.
- 2) Signant core system sends email to all recipients:
 - a) Keeps track of signing priority.
 - b) Sends reminders to recipients that have not completed their tasks on time.
 - c) Sends a notification to the posting owner and other poster administrators when all recipients have successfully completed, or one or more have declined.

- 3) Recipients log in to the signant.no website using a secure electronic identification.
- 4) Recipient signs all required documents using a secure electronic identification.
- 5) Callback with the final status is sent to the External system
- 6) External system checks status for posting
- 7) Notification is sent to posting owner and all posting administrators.
- 8) External System downloads signed documents.

4. Web service functions

Signant exposes the following functions:

Name	Description
CreateSignPosting	For creating a new signature document request.
GetPostingStatus	Returns a simple status overview for the posting.
GetSignPostingStatusDetails	Returns a detailed status of the posting.
DeletePosting	Delete post from the system and removes all files from server.
DownloadAttachment	Download attachment for archiving
Seal service functions	
RequestEnterpriseSignature	Upload document and apply signature with enterprise certificates

5. Functions description

5.1 CreateSignPosting

Input

Name	Type	Description	Required
DistributorID	String	For authentication (Provided by Signant)	Yes
AccessCode	String	For authentication (Provided by Signant)	Yes
DistributorSystemID	String	External system reference, for tracking what system is accessing the service, for example: CRM or WEB	No
ConsumerOrgNo	String	Corporate identity number of invoice recipient. Usage depending on the distributor agreement. Only to be used when Signant sends invoice to end user. Leave this field empty for normal distributor agreement.	No
ConsumerName	String	Name of invoice recipient. Usage depending on the distributor agreement. Only to be used when Signant sends invoice to end user. Leave this field empty for normal distributor agreement.	No
ConsumerInvoiceInfo	String	Label for posting, this will show on the system usage report. Usage: To be used by distributor to retrieve extra information with the invoice.	No
ConsumerOrderOrgNo	String	Extra invoice info, this will appear on the system usage report. Intended usage: optional info for the consumer to identify project cost.	No

ConsumerOrderOrgName	String	Extra invoice info, this will appear on the system usage report. Intended usage: optional info for the consumer to identify project cost.	No
ConsumerOrderInvoiceInfo	String	Extra invoice info, this will appear on the system usage report. Intended usage: optional info for the consumer to identify project cost.	No
Title	String	Name of the posting, used in emails sent to posting recipients and notifications sent to end users.	Yes
Description	String	Short description of posting, will be included in emails sent to posting recipients.	No
ActiveTo	DateTime	Expired date for posting, after this date posting will be locked for further activity 1)	Yes
WillBeDeletedDateTime	DateTime	When Posting will be deleted from system 1)	Yes
UseWidget	Bool	Visible signature widget in the PDF file. If set to false the signature will be visible only from the "Signature panel" in Acrobat Reader	Yes
UseWidgetOnAllPages	Bool	Widget will be created on all pages. Only works when UseWidget is true.	No
PostingAdmins	PostingAdmin()	List of Posting administrators (owner) 2)	Yes
Recipients	Recipient()	List of posting Recipients	Yes
Attachments	Attachment()	List of files to sign	Yes
AutoActivate	Bool	Manual activation 3)	Yes
SenderName	String	Name of the email sender used in system emails to recipients. 4)	No
1) Cannot exceed 1 year 2) At least one PostingAdmin must be provided, first PostingAdmin will be set as PostingOwner 3) Customers that have ServiceToService mode can use the AutoActivation to skip manual activation. 4) If empty or not specified, the name of the PostingOwner will be used.			

PostingAdmin

Name	Type	Description	Required
Name	String	Name of admin	Yes
Email	String	Email of admin	Yes
MobileNumber	String	Mobile number to admin	Yes
SSN	String	Social security number 1)	No
NotifyByEmail	Bool	Should receive status emails or not	Yes

1) When AutoActivate is false then PostingOwner must provide SSN

Recipient

Name	Type	Description	Required
Name	String	Full name of recipient	Yes
Email	String	Email to recipient	Yes
MobileNumber	String	Recipient Mobile Number	No
SSN	String	Social security number of recipient 1)	No
Priority	Int	0 = No priority, 2 = Must sign first 2)	No
NotifyByEmail	Bool	Should receive emails or not	Yes

- 1) User of WS must have permission from recipient to use their SSN
- 2) Read more about priority in [2.3](#)

Attachment

Name	Type	Description	Required
File	Binary	File to sign or to read. 1)	Yes
FileName	String	Name of file	Yes
Description	String	Short description of file	Yes
ActionType	Enum	Sign,Read	Yes

1) File for signing must be a valid PDF file

Output

Name	Type	Description
Success	Bool	Method call Result
Message	String	Error/Validation Message when Success is false
ErrorCode	Int	Error/Validation code when Success is false
PostingID	Guid	ID of newly created posting
ActivationUrl	String	Url for manual activation of posting, empty when AutoActivation = true
AttachmentInfos	AttachmentInfo()	Return information about attachments.

AttachmentInfo

Name	Type	Description
Description	String	Description of file
FileName	String	FileName
GroupID	Guid	GroupID given by Signant to the attachment
AttachmentID	Guid	AttachmentID given by Signant to the attachment

5.2 GetPostingStatus

Input

Name	Type	Description	Required
DistributorID	String	Provided by Signant	Yes
AccessCode	String	Provided by Signant	Yes
PostingID	Guid	Posting ID	Yes

Output

Name	Type	Description
Success	Bool	Method call Result
Message	String	Error/Validation Message when Success is false
ErrorCode	Int	Error/Validation code when Success is false
PostingID	Guid	Posting ID
Status	Enum	Sent, Completed, CompletedPartially, Expired
TotalDocsToSign	Int	Total documents to be signed
TotalDocsSigned	Int	Document count where recipients have signed
TotalDocsRejected	Int	Document count where at least one recipient has rejected
ToBeSignedCount	Int	Document signing request count.
SignatureCount	Int	Document signing completed count.
Activated	Bool	Posting Activation Status
PostingType	Enum	SignViewDocument, RequestDocument, SignOwnDocument
ActiveTo	DateTime	Posting Expiration DateTime
CreatedDateTime	DateTime	Posting Creation DateTime
LastModifiedDateTime	DateTime	Posting Modified DateTime

WillBeDeletedDateTime	DateTime	Date when the posting will to be deleted
Title	String	Title of the posting
Description	String	Short description on
DefaultLanguage	String	Default Language Code
CompletedDateTime	DateTime	Posting completed date time
LastReminderDateTime	DateTime	Not in use
TotalDocsToRead	Int	Ignore when Postingtype is SignViewDocument
TotalDocsRead	Int	Ignore when Postingtype is SignViewDocument
TotalDocsToUpload	Int	Ignore when Postingtype is SignViewDocument
TotalDocsUploaded	Int	Ignore when Postingtype is SignViewDocument

5.3 GetSignPostingStatusDetails

Input

Name	Type	Description	Required
DistributorID	String	Provided by Signant	Yes
AccessCode	String	Provided by Signant	Yes
PostingID	Guid	Posting ID	Yes
AccessToken	Guid	Applies to ApplicationToService mode	No

Output

Name	Type	Description
Success	Bool	Method call Result
Message	String	Error/Validation Message when Success is false
ErrorCode	Int	Error/Validation code when Success is false
PostingID	Guid	Posting ID
Attachments	Attachment()	Array of attachments

Attachment

Name	Type	Description
AttachmentID	Guid	Attachment ID
GroupID	Guid	Attachment Group ID
FileName	String	Name for file
Description	String	Attachment Description
FileSize	Int	Size of the file in bytes
FileModified	DateTime	Last time file was modified
FileCreated	DateTime	Date when file was created
FileHash	String	Md5 checksum of the file
Recipients	Recipient()	Array of attachment recipients
AttachmentStatus	Enum	Pending, Rejected,Completed
CompletedDateTime	DateTime	The date when the actions on this attachment are completed

Recipient

Name	Type	Description
RecipientID	Guid	Recipient ID
Name	String	Recipient Full Name
MobileNumber	String	Recipient Mobile Number
Email	String	Recipient email
ActionType	Enum	Read,Send,Sign
ActionLastDateTime	DateTime	Posting Action Date Time
ActionStatus	Enum	Sent, Completed, Rejected, Delayed
Signed	Bool	Is signed status
Read	Bool	Is Read status
Rejected	Bool	Is Rejected status
RejectReason	String	Reject Reason
LastReminderDateTime	DateTime	Date when last reminder was sent to recipient
SignatureURL	String	Signatur URL for this recipient
CompletedDateTime	DateTime	Posting Action Completed DateTime

5.4 DeletePosting

Input

Name	Type	Description	Required
DistributorID	String	Provided by Signant	Yes
AccessCode	String	Provided by Signant	Yes
PostingID	Guid	Posting to delete	Yes
AccessToken	Guid	Applies to ApplicationToService mode	No

Output

Name	Type	Description
Success	Bool	Method call Result
Message	String	Error/Validation Message when Success is false
ErrorCode	Int	Error/Validation code when Success is false

5.5 DownloadAttachment

Input

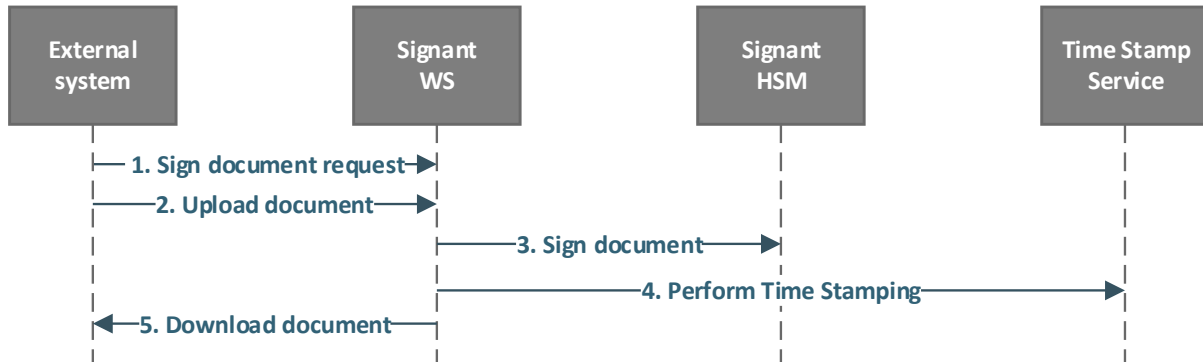
Name	Type	Description	Required
DistributorID	String	Provided by Signant	Yes
AccessCode	String	Provided by Signant	Yes
PostingID	Guid	Posting ID	Yes
AttachmentID	Guid	Attachment ID	Yes
AccessToken	Guid	Applies to ApplicationToService mode	No

Output

Name	Type	Description
Success	Bool	Method call Result
Message	String	Error/Validation Message when Success is false
ErrorCode	Int	Error/Validation code when Success is false
AttachmentID	Guid	Attachment ID
FileName	String	Name for file
AttachmentFile	Byte[]	The file
Description	String	Attachment Description
FileHash	String	Md5 checksum of the file

5.6 RequestEnterpriseSignature

This webservice enables signature and e-Seal functionality by means of enterprise certificates on hosted or cloud enabled Hardware Security Modules (HSM). The service workflow is illustrated in the figure below:



Dataflow steps

1. Sign document request. Business system initiate the Signant eSeal service authenticating and authorizing the request.
2. Merchant Business System uploads document to be signed and sealed.
3. Signant Webservice request the underlying HSM for an electronic signature.
4. Signant add an electronic time stamp by means of an underlying QTSA.
5. The Merchant business system download the signed and sealed document.

The steps are consolidated into a single webservice call to **RequestEnterpriseSignature** with the following input and result values:

Input

Name	Type	Description	Required
DistributorID	String	Provided by Signant. For external system authorization	Yes
AccessCode	String	Provided by Signant. For external system authorization	Yes
File	Binary	PDF document file to be signed or sealed ¹	Yes
FileName	String	The PDF document file name	Yes
SignatureMode	Enum	Seal, Signature ²	Yes
WorkflowMode	Enum	Synchronous ³ , Asynchronous ⁴	Yes
CertificateSubject	String	Enterprise certificate subject name	Yes
CertificateName	String	Display name in the signature widget	No
ExternalRef	String	Reference provided by the external system	No

1) Must be a valid PDF file

2) Not implemented

3) For immediate signature and return of document file

4) For asynchronous signature and later download of the document file (not implemented)

Output

Name	Type	Description
Success	Bool	Method call result
Message	String	Error/Validation message when Success is false
ErrorCode	Int	Error/Validation code when Success is false
File	Binary	Signed file ¹
FileName	String	The PDF document File name
TransactionID	Guid	Transaction identifier of the operation
ExternalRef	String	Reference provided by the external system

1) Empty when WorkflowMode = Asynchronous

Error Codes

Error Code	Description
0	No error
4201	Unauthorized access. Invalid combination of DistributorID and AccessCode
3102	Invalid parameter(s) value
3103	Error validating File. File not valid or eligible for requested operation
3104	Error validating FileToSign. File too big
3105	HSM error – timeout or not responding
3106	Enterprise certificate not present
3107	Enterprise certificate not valid or expired
3108	Operation timeout
9XXX	Other unknown

6. Callback

The Callback service can be turned on upon request, Distributor then needs to provide Signant with a valid callback URL. When callback is turned on a HTTP request to the provided URL is executed for each posting after the signing process is completed, rejected or expired. This can be used to trigger the DownloadAttachment and/or DeletePosting functions.

6.1 Parameters

Name	Type	Description
PostingID	Guid	Posting ID
PostingStatusChange	Bool	Indicates if the callback was initiated because of a status change
PostingStatus	Enum	Completed, CompletedPartially, Expired
SignatoryActivity	Bool	Indicates if the callback was initiated because of an activity by one of the posting recipients

6.2 Example

<https://somesite.com/SignantCallBack/Callback.php?PostingID=11111111-2222-3333-4444-555555555555&PostingStatusChange=True&PostingStatus=Completed&SignatoryActivity=True>

6.3 Retries

The callback URL must return a HTTP statuscode 200. Any other statuscode will trigger a retry after a short delay, the service will retry the callback up to 5 times with exponential time delay.