



INTERNAL – Authorized for SAP Customers
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Hungary Invoice Registration: Setting up SAP Integration Suite (SAP S/4HANA Cloud) - Cloud Foundry environment

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1 Introduction

The communication part of SAP Document and Reporting Compliance for Invoice Registration in Hungary is taken care by SAP Integration Suite. To get SAP Integration Suite working, there are some required steps for both the SAP S/4HANA Cloud and the SAP Integration Suite tenant.

These steps are typically done by an SAP Integration Suite consulting team, which is responsible for configuring the SAP S/4HANA Cloud and the connection with SAP Integration Suite, as well as maintaining the integration content and certificates/credentials on the SAP Integration Suite tenant.

IMPORTANT NOTE: This document describes functionality that is provided by the Integration Package itself, that is, by the artefacts that are deployed to the SAP Integration Suite tenant. It may happen, however, that in the SAP S/4HANA Cloud the access to such functionality is only partially implemented. Additionally, it may happen that the tax authority servers do not provide all services that are described in this document. Please refer to the relevant SAP S/4HANA Cloud documentation and to the relevant tax authority information, respectively.

2 Prerequisites

Before you start with the activities described in this document, ensure that you have set up your tenant as follows:

- If you have subscribed to Process Integration, perform all the initial setup steps described in [Initial Setup of SAP in Cloud Foundry Environment](#).
- If you have subscribed to Integration Suite, perform all the initial setup steps described in [Initial Setup](#).

Note

SAP Document and Reporting Compliance requires the **Cloud Integration capability**. You need to activate this capability in the step **Provisioning the Capabilities**.

2.1 Set Up SAP Integration Suite Tenants

SAP Integration Suite test and productive tenants are live and users in the tenants have sufficient rights to copy the integration package and to configure and deploy the integration flow.

To be able to deploy the security content, you need the `AuthGroup.Administrator` role.

For the subsequent configuration of SAP S/4HANA Cloud, note down the URL of the tenant. It is the Tenant Management (TMN) URL which you received when the tenant was provisioned.

2.2 Deploy Security Material for SAP Integration Suite

To establish a connection between the SAP Integration Suite and tax authority servers, you must obtain several security materials, and then add these to the SAP Integration Suite tenant.

2.2.1 Add Credentials for Authenticating Tenant at Tax Authority

SAP Integration Suite uses a user credential to authenticate the communication with external systems. For the Hungary Invoice Registration scenario, you must include credentials that are recognized by the tax authority (National Tax and Customs Administration of Hungary, NAV). A user credential is specific to a technical user registered in the Online Invoicing System of the tax authority.

You need to add and deploy your user credentials as *User Credentials* in the *Security Material* section of your SAP Integration Suite tenant.

Overview

Monitor Message Processing

All Integration Flows Past Hour 0 Messages	All Integration Flows Past Hour 0 Failed Messages	All Integration Flows Past Hour 0 Error Messages	All Integration Flows Past Hour 0 Retry Messages	All Integration Flows Past Hour 0 Completed Messages	+
--	---	--	--	--	---

Manage Integration Content

All 209 All	All 193 Started	All 14 Error	+
-------------------	-----------------------	--------------------	---

Manage Security

Security Material 38 Artifacts	Keystore 202 Entries	Certificate-to-User Mappings 1 Artifacts	Connectivity Tests
--------------------------------------	----------------------------	--	--------------------

SAP Cloud Integration

Overview / Manage Security Material

Security Material (164)

Filter by Name or Deployed By

Create Upload

Name	Type	Status	Deployed By	Deployed On
...
...
...

User Credentials
OAuth2 Client Credentials
OAuth2 SAML Bearer Assertion
OAuth2 Authorization Code
Secure Parameter

Create User Credentials

Name: *

Description:

Type: *

User: *

Password:

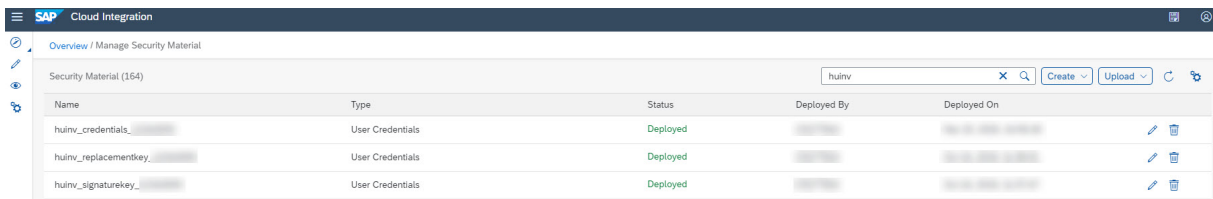
Repeat Password:

Deploy Cancel

Note

Use the name/alias of <huinv_credentials_tax id of company/supplier>, where <tax id of company/supplier> is your company's or your supplier's VAT Identity Number. This VAT Identity Number is an eight-digit number, for example, 12345678. Your supplier's VAT Identity Number is used in the self-billing scenario. In this scenario, a company registers invoices on behalf of its suppliers. From the technical point of view, one technical user per supplier is sufficient.

A password of a technical user is not the same password as the primary user of the NAV account. Every technical user has a different password. The password is assigned upon creation of the technical user in the NAV online portal.



2.2.2 Add Signature Key and Replacement Key

You will get a signature key and a replacement key for a technical user in the tax authorities' Online Invoicing System. The signature key is required for signing messages. The replacement key is required for the server-side encoding and client side decoding of the data report token.

You need to add and deploy the signature key and the replacement key as *User Credentials* in the *Security Material* section of your SAP Integration Suite tenant.

Note

The name/alias has the following format:

- huinv_signaturekey_<tax id of company/supplier>and
- huinv_replacementkey_<tax id of company/supplier>.

where <tax id of company/supplier> is your company's or your supplier's VAT Identity Number.

After completing the *Name* field, please enter a technical user name to the *User* field and enter a key to the *Password* field.

For example, you need to maintain a credential, a signature key and a replacement key per technical user like below.

	Credential	Signature Key	Replacement Key
Name	huinv_credentials_12345678	huinv_signaturekey_12345678	huinv_replacementkey_12345678
Description	free text	free text	free text

	Credential	Signature Key	Replacement Key
User	technical NAV user	technical NAV user (same as in huinv_credentials_12345678)	technical NAV user (same as in huinv_credentials_12345678)
Password	password	signaturekey	replacementkey

2.2.3 Adding Credentials for Sending Requests to an Integration Flow

You want to add credentials for sending request from the integration flow *eDocument Hungary Invoice Registration - Receive Invoice* to the integration flow *eDocument Hungary Invoice Registration - Store Invoice*.

Procedure

1. Choose *Security Material*.

The screenshot shows the SAP Cloud Integration Overview page. The 'Monitor Message Processing' section displays five cards for 'All Integration Flows Past Hour' with counts: Messages (0), Failed Messages (0), Error Messages (0), Retry Messages (0), and Completed Messages (0). The 'Manage Integration Content' section shows three cards: All (209), Started (193), and Error (14). The 'Manage Security' section is highlighted with a red box and contains four cards: Security Material (38 Artifacts), Keystore (202 Entries), Certificate-to-User Mappings (1 Artifacts), and Connectivity Tests.

2. Select **Create** > *User Credentials*.

The screenshot shows the 'Security Material (164)' list in SAP Cloud Integration. The 'Create' dropdown menu is open, showing options: User Credentials (highlighted with a red box), OAuth2 Client Credentials, OAuth2 SAML Bearer Assertion, OAuth2 Authorization Code, and Secure Parameter.

3. For *Name*, enter the value for the `clientid` and for Password, enter the value `clientsecret`, and select *Deploy*.

Create User Credentials

Name: *	<input type="text"/>
Description:	<input type="text"/>
Type: *	User Credentials ▼
User: *	<input type="text"/>
Password:	<input type="password"/>
Repeat Password:	<input type="password"/>

[Deploy](#) [Cancel](#)

Note

The user must have the role `ESBMessaging.send`.

2.3 Deploy SSL Certificate of the Tax Authorities

To establish an SSL connection to the tax authorities' server, SAP Integration Suite needs to trust the SSL certificate from the tax authorities' servers; to achieve this, you must download the *root certificate* of the entire certificate chain from the server and upload it to the SAP Integration Suite tenant. Please refer to the tax authorities' sites or the relevant governmental support teams to obtain the root certificate of the certificate chain.

Another option is to use third-party software, that has the capability of examining and downloading site certificates, like browsers or key store explorers. The URLs for the respective environment are:

- <https://api-test.onlineszamlamanager.nav.gov.hu> for test;
- <https://api.onlineszamlamanager.nav.gov.hu> for production.

The exact procedure of the SSL certificate downloading depends on the third-party software and the operating system that you use, for example,

- in the 66th version of Google Chrome for Microsoft Windows, SiSL certificates are accessible via the *View certificate* button, under *Security* tab of the *Developer Tools*,
- or, in the *KeyStore Explorer* the certificates can be accessed via menu path **Examine > Examine SSL**.

Note

Importing the whole chain of trust as a trust anchor in SSL is not necessary, the verification will end up checking the root certificate if checking of end-entity certificate and intermediate certificate in the

chain of trust fail. SSL trust should be established through the long-lived root certificate of the public key infrastructure (PKI). In case of configuring trust using the long-lived root certificate, configured communication scenarios will continue to work even when the end-entity/server certificates are updated or replaced. The end-entity/server certificates are updated or replaced because sometimes there could be a suspected or real security-breach on one of those servers, or sometimes because of simple end-entity/server certificate expiration.

3 Configuration Steps in SAP Integration Suite

The following sections tell you the necessary configuration you do in SAP Integration Suite.

[General Information \[page 10\]](#)

[Copying Published Package \[page 11\]](#)

[Configuring Integration Flows \[page 11\]](#)

[Configuring Tenant Parameters for eDocument Hungary Invoice Registration - Receive Invoice \[page 15\]](#)

You configured the integration flow *eDocument Hungary Invoice Registration - Receive Invoice* and want to add the tenant URL and tenant credentials.

3.1 General Information

The package **SAP Document and Reporting Compliance: Electronic Invoice Registration for Hungary** contains the following integration flows:

Integration flows for eDocument for Hungary

Integration Flow Name in WebUI	Project Name/Artifact Name
eDocument Hungary Invoice Registration - Get Status	com.sap.GS.Hungary.InvoiceRegistration.GetStatus
eDocument Hungary Invoice Registration - Manage	com.sap.GS.Hungary.InvoiceRegistration.ManageInvoice
eDocument Hungary Invoice Registration - Receive Invoice	com.sap.GS.Hungary.InvoiceRegistration.ReceiveInvoice
eDocument Hungary Invoice Registration - Store Invoice	com.sap.GS.Hungary.InvoiceRegistration.StoreInvoice
eDocument Hungary Invoice Registration - Manage Technical Annulment	com.sap.GS.Hungary.InvoiceRegistration.ManageAnnulment

Parent topic: [Configuration Steps in SAP Integration Suite \[page 10\]](#)

Related Information

[Copying Published Package \[page 11\]](#)

[Configuring Integration Flows \[page 11\]](#)

[Configuring Tenant Parameters for eDocument Hungary Invoice Registration - Receive Invoice \[page 15\]](#)

3.2 Copying Published Package

Procedure

1. In the *Discover* chapter of your tenant, select the package *SAP Document and Reporting Compliance: Electronic Invoice Registration for Hungary*.
2. Select the package and click *Copy* in the upper right corner.

Task overview: [Configuration Steps in SAP Integration Suite \[page 10\]](#)

Related Information

[General Information \[page 10\]](#)

[Configuring Integration Flows \[page 11\]](#)

[Configuring Tenant Parameters for eDocument Hungary Invoice Registration - Receive Invoice \[page 15\]](#)

3.3 Configuring Integration Flows

Context

ⓘ Note










This step must be executed for the package that was copied as described in [Copying Published Package \[page 11\]](#).

Procedure

1. Go to the integration package that was copied from the original *SAP Document and Reporting Compliance: Electronic Invoice Registration for Hungary*.
2. Click the *Artifacts* tab.
3. Choose *Actions* that corresponds to integration flows *eDocument Hungary Invoice Registration - Get Status*, *eDocument Hungary Invoice Registration - Manage*, *eDocument Hungary Invoice Registration - Receive Invoice*, and *eDocument Hungary Invoice Registration - Manage Technical Annulment*.

This integration package provides content required to integrate SAP Cloud Integration with SAP Document and Reporting Compliance and external system. Vendor: SAP Mode: Editable
 Version: 3.2.0

Overview Artifacts (4) Documents (5) Tags

Name	Type	Version	Actions
<input type="checkbox"/> eDocument Hungary Invoice Registration - Get Status Get status of invoice registrations; receive the application response Unmodified	Integration Flow	3.1.0	 >
<input type="checkbox"/> eDocument Hungary Invoice Registration - Manage Send or cancel invoice registrations; receive the application response with the transaction ID Unmodified	Integration Flow	3.1.1	    >
<input type="checkbox"/> eDocument Hungary Invoice Registration - Receive Invoice Receive and store invoice from the exchange system (NAV). Pull or delete invoices from the datastore. Created	Integration Flow	1.0.10	 >
<input type="checkbox"/> eDocument Hungary Invoice Registration - Store Invoice Store invoices from NAV to datastore Created	Integration Flow	1.0.10	   >

Note

The version of the integration on the screenshot may differ from the current one.

- Choose *Configure* and maintain the following configuration parameters:

Sender tab

Make the following settings:

Use the `Address` parameter if you would like to follow your own naming convention.

Configure "eDocument Hungary Invoice Registration - Manage"

Sender More

Sender: ERP

Adapter Type: SOAP

Connection

Address: /Hungary/ManageInvoice

Authorization: User Role

User Role: ESBMessaging.send

Select

Note

A connection address has to be unique within a tenant.

Select the required authorization (*User Role* or *Client Certificate*) that has been configured for the connection between your ERP system and the tenant:

- For the *User Role* authorization, select relevant user role (e.g. `ESBMessaging.send`).

Configure "eDocument Hungary Invoice Registration - Manage"

Sender More

Sender: ERP

Adapter Type: SOAP

Connection

Address: /Hungary/ManageInvoice

Authorization: User Role

User Role: ESBMessaging.send

Select

- For the *Client Certificate* authorization, provide certificate credentials.

Configure "eDocument Hungary Invoice Registration - Manage"

Sender More

Sender: ERP

Adapter Type: SOAP

Connection

Address: /Hungary/ManageInvoice

Authorization: Client Certificate

Subject DN

Issuer DN

Select

More tab

Make the following settings:

Note

In some versions may also have title *Parameters*.

Note

The layout under this menu tab may differ from the screenshot provided.

- Use the `usageMode` parameter to set up the integration package usage mode:

The screenshot shows a configuration form with the following fields:

- Type: All Parameters (dropdown)
- logMode: YES
- Request_Version: 3.0
- usageMode: TEST (highlighted with a red box)

Value	Description
TEST	To use test system of the tax authority.
PROD	To use productive (i.e. legally binding) system of the tax authority.

- Use the `Request_Version` parameter to set up the version of the integration flow:

The screenshot shows a configuration form with the following fields:

- Type: All Parameters (dropdown)
- logMode: YES
- Request_Version: 3.0 (highlighted with a red box)
- usageMode: TEST

- Use the `logMode` parameter to enable or disable the logging of the integration flow:

The screenshot shows a configuration form with the following fields:

- Type: All Parameters (dropdown)
- logMode: YES (highlighted with a red box)
- Request_Version: 3.0
- usageMode: TEST

- Choose [Save](#) to save your configuration and [Deploy](#) to deploy it actively to server, respectively.

Note

Depending on the version of your tenant version, after pressing these buttons, a screen with warning messages can appear (see example below). You can ignore them by choosing [Close](#). The first two warnings are related to the payload attachments; currently the invoice registration process does not support or require message attachments (for example, scanned copies of invoices) in any stage of processing and communication.

Severity	Description	Location
▲	NonLoopingProcess drops attachment in payload from SOAP 1.x Sender. NonLoopingProcess does not support payload attachment.	Process Call [CallActivity_10]
▲	NonLoopingProcess drops attachment in payload from SOAP 1.x Sender. NonLoopingProcess does not support payload attachment.	Process Call [CallActivity_4]
▲	Process Call may not pass Xml message to XSLT Mapping. XSLT Mapping supports Xml input only.	Modify Response [CallActivity_16]

Next Steps

To complete the configuration for the integration flow *eDocument Hungary Invoice Registration - Receive Invoice*, you must include the tenant URL and tenant credentials. For more information, check [Configuring Tenant Parameters for eDocument Hungary Invoice Registration - Receive Invoice \[page 15\]](#).

Task overview: [Configuration Steps in SAP Integration Suite \[page 10\]](#)

Related Information

[General Information \[page 10\]](#)

[Copying Published Package \[page 11\]](#)

[Configuring Tenant Parameters for eDocument Hungary Invoice Registration - Receive Invoice \[page 15\]](#)

3.4 Configuring Tenant Parameters for eDocument Hungary Invoice Registration - Receive Invoice

You configured the integration flow *eDocument Hungary Invoice Registration - Receive Invoice* and want to add the tenant URL and tenant credentials.

Prerequisites

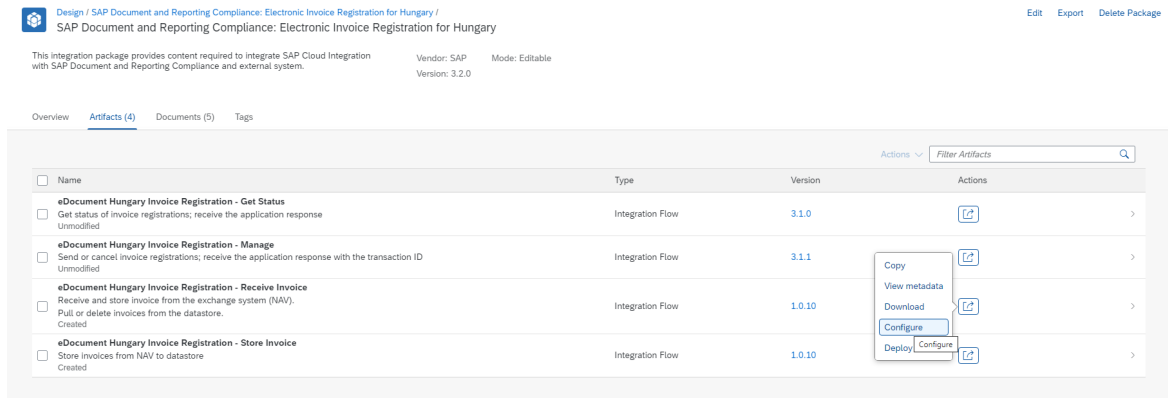
You made the required configurations for the integration flow, check [Configuring Integration Flows \[page 11\]](#).

Context

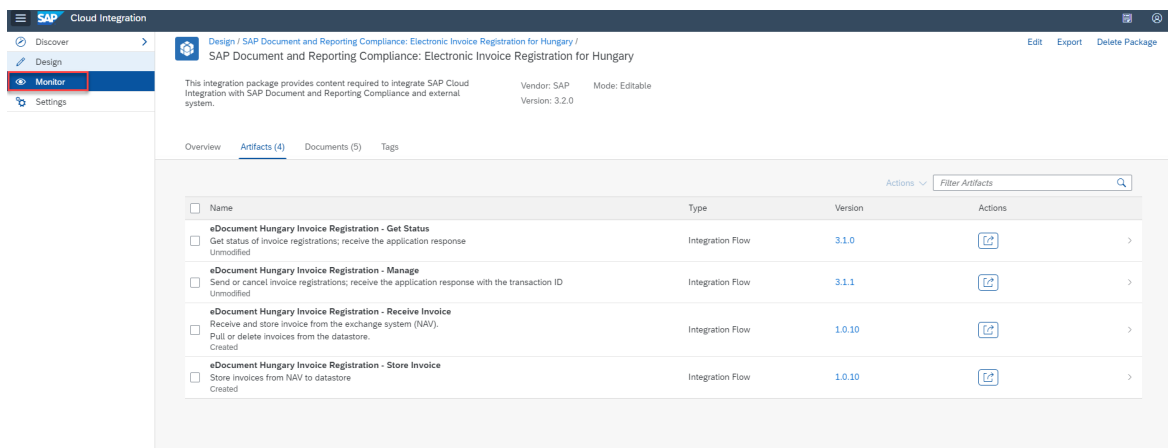
Use the following instructions to find and maintain the correct tenant URL for the integration flow *eDocument Hungary Invoice Registration - Receive Invoice*.

Procedure

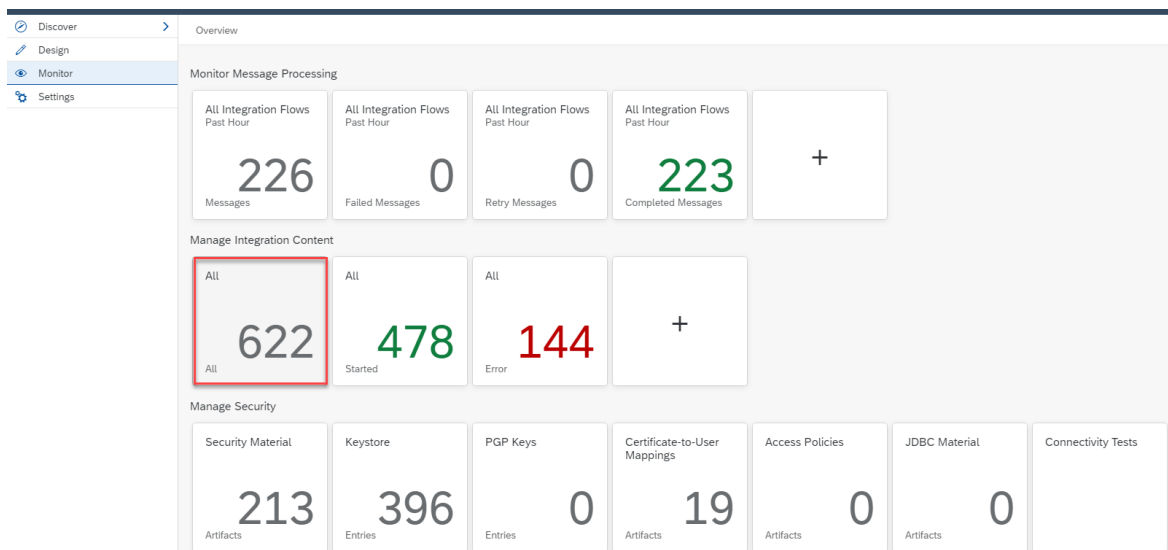
1. Go to the integration package that was copied from the original *SAP Document and Reporting Compliance: Electronic Invoice Registration for Hungary*.



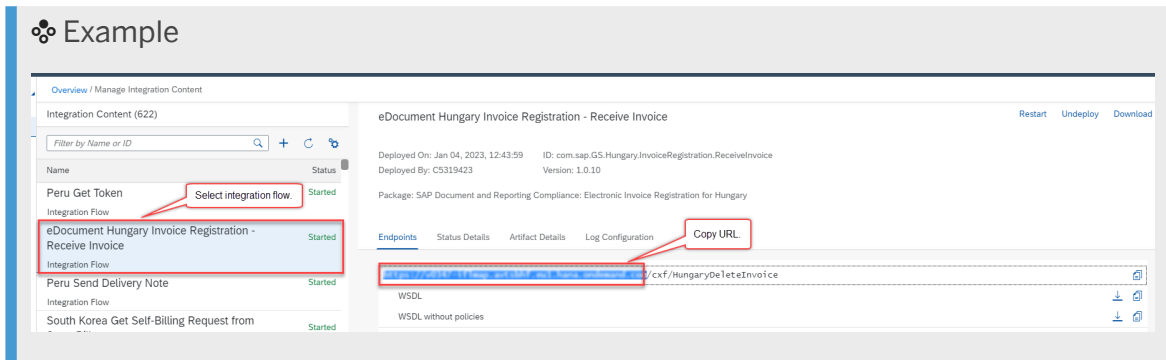
2. Select the *Monitor* button.



3. Choose *Manage Integration Content*.



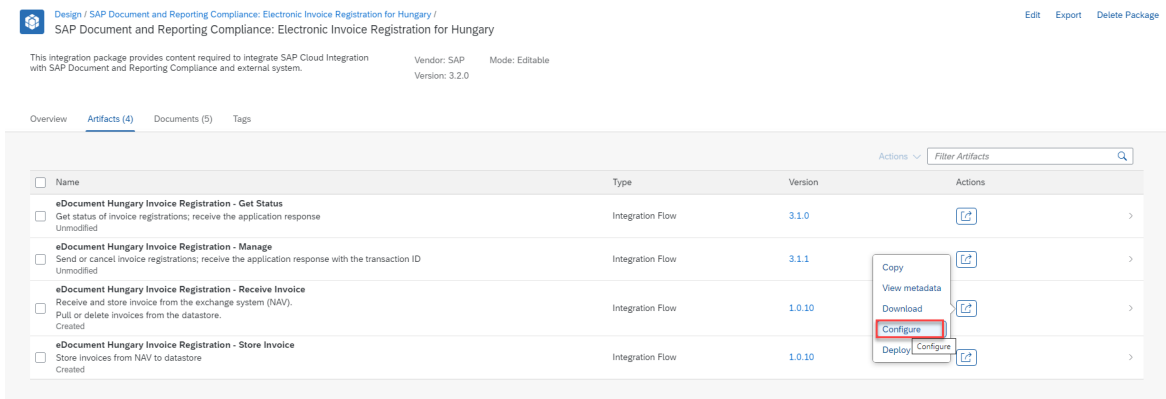
4. Select an integration flow and copy the relevant part of the URL as displayed in the screenshot below.



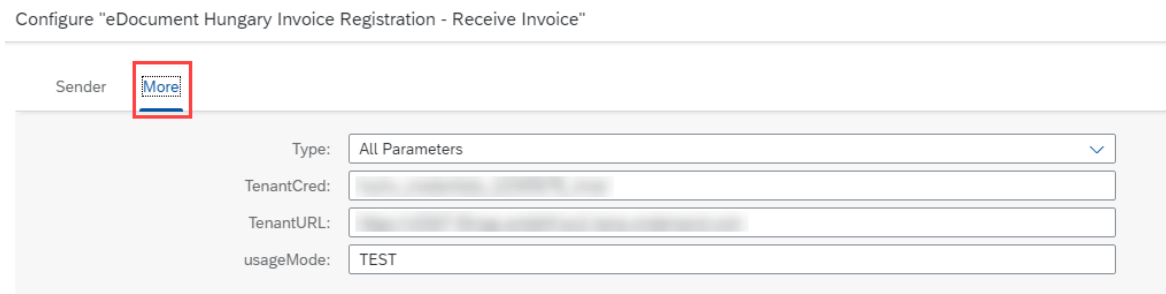
Note
You can select any integration flow.

Note
The relevant URL section always ends before the `/cxf/` part.

- Go back to the integration package that was copied from the original *SAP Document and Reporting Compliance: Electronic Invoice Registration for Hungary*.
- Click the *Artifacts* tab.
- Click on Actions button that corresponds to integration flow *eDocument Hungary Invoice Registration - Receive Invoice*.
- Select *Configure*.



- Click the *More* tab.



10. In the field *TenantCred*, enter the credential alias (name).

Configure "eDocument Hungary Invoice Registration - Receive Invoice"

Sender [More](#)

Type: All Parameters

TenantCred: [Redacted]

TenantURL: [Redacted]

usageMode: TEST

Note

For the credential alias, enter the name of the credentials that you've created for sending requests to an integration flow.

11. In the field *TenantURL*, enter the URL and save your entries.

Configure "eDocument Hungary Invoice Registration - Receive Invoice"

Sender [More](#)

Type: All Parameters

TenantCred: [Redacted]

TenantURL: [Redacted]

usageMode: TEST

Task overview: [Configuration Steps in SAP Integration Suite \[page 10\]](#)

Related Information

[General Information \[page 10\]](#)

[Copying Published Package \[page 11\]](#)

[Configuring Integration Flows \[page 11\]](#)

[Adding Credentials for Sending Requests to an Integration Flow \[page 7\]](#)

4 Configuration Steps for SAP S/4HANA Cloud

The following sections tell you the necessary configuration you do in SAP S/4HANA Cloud.

4.1 Configuring a Communication System

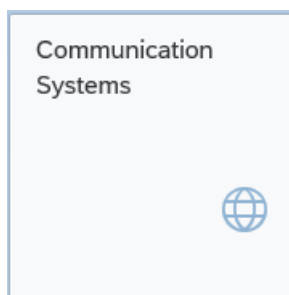
Create a communication system that represents your SAP Integration Suite tenant.

Prerequisites

- Live SAP Integration Suite test or productive tenant must be available.
- Communication systems and communication arrangements are not transportable and must be explicitly maintained in quality and production systems.
- The SAP S/4HANA Cloud user, who configures communication systems and communication arrangements, must be assigned to the business catalog role `SAP_BCR_CORE_COM` (*Communication Management*) for accessing communication management apps.

Procedure

1. Login to your S/4HANA Cloud tenant with the Cloud User.
2. Find and launch the *Communication Systems* app. Choose *New*.



A *New Communication System* dialog box appears.

3. Create a system ID and give it a descriptive name.

New Communication System

*System ID:

*System Name:

Create Cancel

4. Choose *Create*.

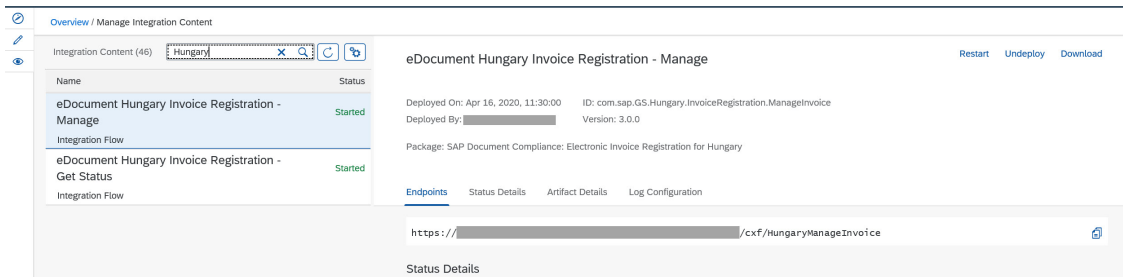
An editing screen for the communication system appears.

5. In the *Technical Data* section, enter the host name and HTTPS port of your SAP Integration Suite tenant.

To find the host name for your tenant, in SAP Integration Suite, do as follows:

1. From the menu on the left, choose the *Operations* view.
2. Select *Manage Integration Content* (All).
3. Search for the integration flow for the scenario you are configuring.
4. Find the host name in the *Endpoints* tab.

The endpoint URL is a concatenation of host name and path: **https://<host name>/<path>**.



6. In the *User for Outbound Communication* section, choose +.

Contact Information

Contact Person Name: Phone Number:

E-Mail:

OAuth 2.0 Identity Provider

Enabled:

User for Inbound Communication +

Authentication Method	User Name
No data	

User for Outbound Communication +

Authentication Method	User Name/Certificate/Client ID
No data	

7. Select an authentication method, which is used to connect to your SAP Integration Suite tenant. Proceed as follows:

New Outbound User

*Authentication Method: **User Name and Password** (dropdown menu open)

*User Name:

*Password:

Cancel

- If you select the authentication method *User Name and Password*, for *User Name* enter the value for the **clientid** and for *Password*, the value for the **clientsecret**. You create these values for your service instance in SAP Integration Suite. For more information, see [Creating Service Instances](#).

New Outbound User

*Authentication Method: **User Name and Password** (dropdown)

*User Name:

*Password:

Create Cancel

- If you select the authentication method *SSL Client Certificate*, select the *Default Client Certificate* type and choose *Create*. You must configure this certificate in SAP Integration Suite too. For that you create a service instance using the required grant_type. You create the service key using the certificate uploaded to the SAP S/4HANA Cloud. For more information, see [Defining a Service Key for the Instance in the Cloud Foundry Environment](#).

New Outbound User

*Authentication Method: **SSL Client Certificate** (dropdown)

Certificate Type: **Default Client Certificate** (dropdown)

Create Cancel

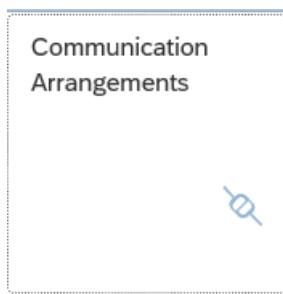
8. Choose *Save*.

4.2 Configuring Communication Arrangement

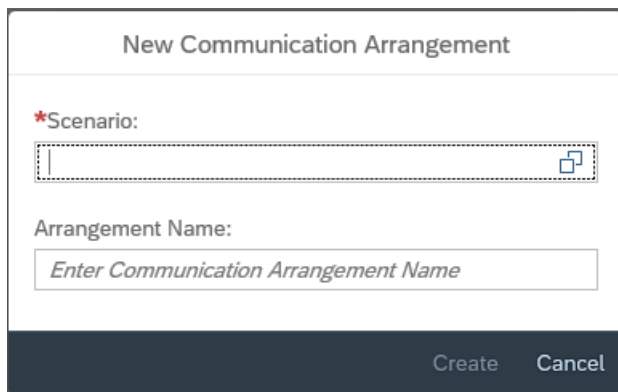
Configuration steps for SAP S/4HANA Cloud Communication Arrangement.

Procedure

1. Log in to your S/4HANA Cloud tenant with the Cloud User.
2. Find and launch the application *Communication Arrangements*.



3. Choose *New*. In the new pop-up window, enter the *Scenario* as SAP_COM_0417 (which is the one designated for communication with the tax authority via SAP Integration Suite package) and an *Arrangement Name*. For *Arrangement Name* it is recommended to choose a name like SAP_COM_0417_<name of SAP Integration Suite tenant>, for example, SAP_COM_0417_V1234 for tenant host name beginning with v1234-tmn.

A screenshot of the 'New Communication Arrangement' pop-up window. The window has a white background and a dark blue footer. The title 'New Communication Arrangement' is at the top. Below the title, there is a red asterisk followed by the label '*Scenario:'. A text input field is provided for the scenario, with a small square icon to its right. Below this, the label 'Arrangement Name:' is followed by a text input field containing the placeholder text 'Enter Communication Arrangement Name'. At the bottom of the window, there are two buttons: 'Create' and 'Cancel'.



4. Choose *Create*.
5. In the new window, choose the communication system created in the previous step (for example, EDOC_V1234) and the authentication method, relevant to the communication system.
 - If you use the basic authentication, for *User Name* enter the value for the **clientid** and for *Password*, the value for the **clientsecret**. You create these values for your service instance in SAP Integration Suite. For more information, see [Creating Service Instances](#)

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