



Integration Guide | PUBLIC
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Turkey Electronic Invoices and Delivery Notes: Setting Up SAP Integration Suite (SAP S/4HANA Cloud) - Cloud Foundry environment

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2 Introduction

You use SAP Integration Suite to establish the communication with external systems and transfer to them the electronic documents you have created using the SAP Document and Reporting Compliance solution. This document describes the setup steps that you must perform in your SAP S/4HANA Cloud tenant and SAP Integration Suite tenant so that the integration between the systems works.

The setup steps are typically done by an SAP Integration Suite consulting team, which is responsible for configuring the SAP S/4HANA Cloud tenant and the connection with SAP Integration Suite. This team may be also responsible for maintaining the integration content and certificates/credentials on the SAP Integration Suite tenant.

i Note

Although the service name **SAP Integration Suite** is used in the guide title and throughout the guide, this guide **also applies to SAP Cloud Integration running in the Cloud Foundry environment**. If you were onboarded before July 2020, the service you use is SAP Cloud Integration. The initial setup steps for the two services are different, while the integration flow settings and configuration steps in your back-end system are the same. See the **Set Up Your Tenants** section for their respective initial setup steps.

i Note

This document describes functionality that is provided by the Integration Package itself, that is, by the artifacts that are deployed in the SAP Integration Suite tenant. It may happen, however, that in the SAP S/4HANA Cloud tenant the access to such functionality is only partially implemented. Additionally, it may also 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.

3 Prerequisites

3.1 Registration with the Tax Authorities and an Application Service Provider

You must ensure the following:

- You have completed registration with the tax authorities (TRA) for the invoice and delivery note scenarios.
- You have completed registration with an application service provider for the invoice and delivery note scenarios.

The application service provider issues user credentials (username and password) for your VKNs. You need to configure these user credentials on your tenant. In addition, you need to get service URLs from your application service provider and configure them in integration flows.

You can find application service providers who are in partnership with SAP from [SAP App Center](#) . Search with the keyword **SAP Document and Reporting Compliance**.

3.2 Set Up Your Tenants

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

i Note

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

4 Configuration Steps in SAP Integration Suite

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

4.1 Deploy User Credentials

You must deploy the user credentials that you've got from your application service provider to the SAP Integration Suite tenant.

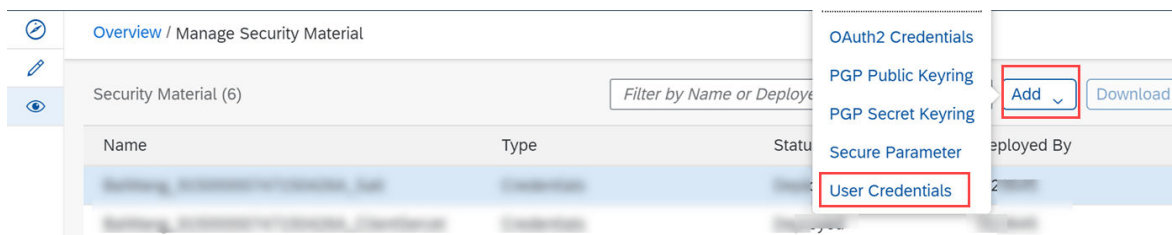
Note

User credentials for the delivery note scenario and invoices scenario may vary.

Procedure

To configure a pair of credentials (username and password), follow the steps below:

1. Log into your SAP Integration Suite tenant.
2. Go to *Monitor* (Operations view) and open the *Security Material* app.
3. Click *Add* on the top right corner of the browser window. Select *User Credentials*.



An *Add User Credentials* dialog box appears.

Add User Credentials

***Name:**

Description:

***Type:** ▼

***User:**

Password:

Repeat Password:

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

4. In the *Name* field, create a name for your credentials.
5. In the *User* field, enter the user name.
6. In *Password* field, enter the password.
7. In the *Repeat Password* field, repeat the password.
8. Choose *Deploy*.

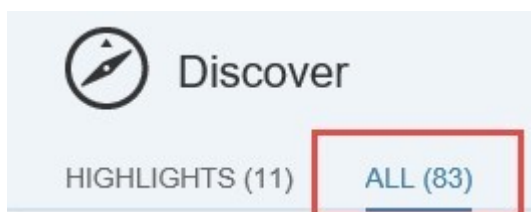
4.2 Copy Published Package

Context

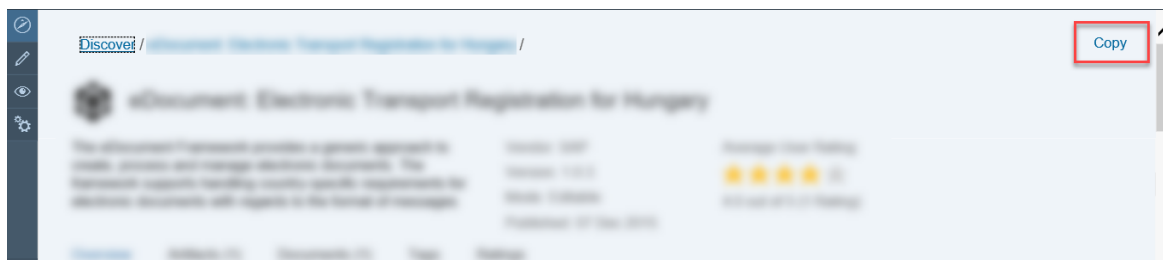
Copy the package *SAP Document and Reporting Compliance: Electronic Invoices and Delivery Notes for Turkey* to the target tenant as follows:

Procedure

1. Log in to your SAP Integration Suite tenant.
2. Choose [Discover](#) [All](#) [>](#) [>](#).



3. Search for *SAP Document and Reporting Compliance: Electronic Invoices and Delivery Notes for Turkey*.
4. Select the package and choose *Copy*.



4.3 Deploy Integration Flows

Context

The following integration flows are available in the integration package *SAP Document and Reporting Compliance: Electronic Invoices and Delivery Notes for Turkey*:

Integration Flow	Explanation
Turkey Invoice via Any Service Provider	Deploy this integration flow if you want to use a service provider other than Foriba .
Turkey eArsiv via Any Service Provider	Deploy this integration flow if you want to send electronic consumer invoices via a service provider other than Foriba .
<div style="background-color: #f0f0f0; padding: 10px;"> <p>i Note</p> <p>To send electronic consumer invoices via a service provider other than Foriba, you must deploy both the Turkey Invoice via Any Service Provider and Turkey eArsiv via Any Service Provider integration flows.</p> </div>	
Turkey Invoice via Specific Service Provider	Deploy this integration flow if you want to send and receive electronic invoices via the service provider Foriba .
Turkey Delivery Note via Any Service Provider	Deploy this integration flow if you want to send and receive electronic delivery notes via a service provider other than Foriba .
Turkey Delivery Note via Specific Service Provider	Deploy this integration flow if you want to send and receive electronic delivery notes via the service provider Foriba .

For each integration flow, you must configure several parameters as described below:

Procedure

1. Open the integration package that you copied.
2. Go to the *Artifacts* tab page.
3. Choose **► Actions ► Configure ▾** for the integration flow you want to configure.
4. Choose the *Sender* tab. Make the following settings:
 - In the *Address* field, keep the default address or enter a custom sender address.
If you have multiple company codes, instead of copying the integration package for each company code, you may want to copy an integration flow for each company code. In this case, to differentiate the sender addresses for different company codes, you can define custom, company code-specific sender addresses.
 - From the *Authorization* dropdown list, select an authorization type. The available options are:

Authorization Type	Description
<i>User Role</i>	Select this authorization type if you want to use basic authentication (user/password) or client certificate authentication with Certificate-to-User-Mapping.
<i>Client Certificate</i>	Select this authorization type if you want to use client certificate authentication without Certificate-to-User-Mapping. For more information, see Cloud Integration – How to Setup Secure Outbound HTTP Connection using Key-store Monitor .

See the following example:

The screenshot shows the configuration interface for the Sender tab. It includes a tab selector with 'Sender' selected and 'Receiver' as an option. Below this, there are four configuration fields:

- Sender:** A dropdown menu with 'Sender' selected.
- Adapter Type:** A dropdown menu with 'SOAP' selected.
- Address:** A text input field containing '/Turkey/eDelivery'.
- Authorization:** A dropdown menu with 'User Role' selected.

5. Choose the *Receiver* tab. Make settings as follows:
 - In the *Address* field, enter the service URL that you got from your service provider.
 - In the *Credential Name* field, enter the name of the credential that you deployed to your tenant (see [Deploy User Credentials \[page 6\]](#)).

Sender **Receiver**

Receiver:

Adapter Type:

Connection

Address:

Credential Name:

6. Choose *Deploy* to deploy it to the server.

5 Configuration Steps for SAP S/4HANA Cloud

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

5.1 Configuring a Communication System

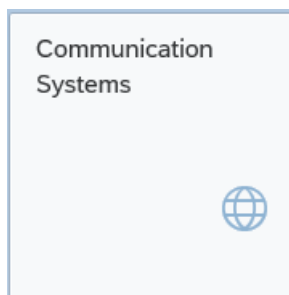
Create a communication system that represents your SAP Integration Suite tenant.

Prerequisites

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

Procedure

1. Log in to your S/4HANA Cloud tenant.
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.

For example, if the host name of your SAP Integration Suite tenant is `v1234.cfapps.sap.hana.ondemand.com`, you can use `EDOC_V1234` as the system ID.

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 the integration flow that you want to communicate with..

Technical Data

General

*Host Name:

Logical System:

Port:

Is Hub System:

UI Host Name:

Business System:

You can find the host name of an integration flow, as follows:

1. From the menu on the left, choose *Monitor*.
2. Select *Manage Integration Content (All)*.
3. Search for the integration flow.
4. Find the host name from the *Endpoints* tab.

The composition of an endpoint URL is **https://<host name>/<path>**.

Endpoints
Status Details
Artifact Details
Log Configuration

https://<host name>/<path>

WSDL

WSDL without policies

📄

↓ 📄

↓ 📄

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 in connecting to your SAP Integration Suite tenant. Proceed as follows:

New Outbound User

*Authentication Method: User Name and Password ▼

*User Name: User Name and Password

*Password: SSL Client Certificate

OAuth 1.0

OAuth 2.0

None

Cancel

- If you select the authentication method *User Name and Password*, enter the value of your `clientId` in the *User Name* field, and the value of your `clientsecret` in the *Password* field. 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 ▼

*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 ▼

Certificate Type: Default Client Certificate ▼

Create Cancel

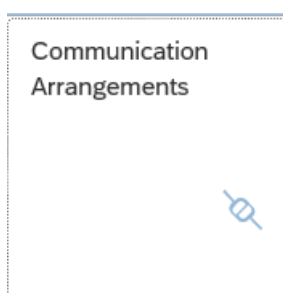
8. Choose *Save*.

5.2 Configuring a Communication Arrangement

Create a communication arrangement that describes the communication between your SAP S/4HANA Cloud tenant and SAP Integration Suite tenant.

Procedure

1. Log in to your S/4HANA Cloud tenant.
2. Find and launch the *Communication Arrangements* app. Choose *New*.



A *New Communication Arrangement* dialog box appears.

3. Enter the ID of the communication scenario that you want to use and an arrangement name.

The following communication scenarios are available for Turkey:

- SAP_COM_0421 (*eDocument - Turkey eDelivery Note and Incoming eDelivery Note Integration*)
- SAP_COM_0422 (*eDocument - Turkey Invoice and Incoming Invoice Integration*)

For example, if the host name of your SAP Integration Suite tenant is `v1234-tmn.avt.eu1.hana.ondemand.com`, you can use `SAP_COM_0419_V1234` as the communication arrangement name.

4. Choose *Create*.

An editing screen for the communication arrangement appears.

5. In the *Communication System* field, enter the communication system that you created earlier.
6. Depending on the authentication method that you specified in the communication system, proceed as follows in the *Outbound Communication* section:
 - If the authentication method is *User Name and Password*, the system displays the outbound user that you defined in the communication system automatically. You don't need to perform any action here.

- If the authentication method is *SSL Client Certificate* with the certificate type *Default Client Certificate*, download the certificate here and upload it to SAP Integration Suite.

7. In the *Outbound Services* section, activate the services required for your document types by selecting the *Active* checkboxes and enter the paths of the related integration flows on SAP Integration Suite.

i Note

- To send electronic consumer invoices via a service provider other than Foriba, activate the *eDocument Turkey Consumer Invoice Services* service. Although you need to deploy both the

Turkey Invoice via Any Service Provider and *Turkey eArsiv via Any Service Provider* integration flows, you must enter the path of the *Turkey Invoice via Any Service Provider* integration flow for this service.

- To transmit other types of electronic invoices, activate both the *Turkey eInvoice Services* and *Turkey eInvoice Services Version 2* services.

Below are outbound service examples about electronic invoices:

The screenshot shows the 'Outbound Services' configuration page in SAP. It lists three services, each with a 'Download WSDL/Service Metadata' link. The services are:

- Turkey eInvoice Services:** Service Status: Active; Application Protocol: SOAP; Port: 443; Path: /sap/op/443/...; Service URL: https://...; Use WSRM:
- eDocument Turkey consumer invoice services:** Service Status: Active; Application Protocol: SOAP; Port: 443; Path: /sap/op/443/...; Service URL: https://...; Use WSRM:
- Turkey eInvoice Services Version 2:** Service Status: Active; Application Protocol: SOAP; Port: 443; Path: /sap/op/443/...; Service URL: https://...; Use WSRM:

You can find the path for an outbound service on your SAP Integration Suite tenant, as follows:

1. From the menu on the left, choose *Monitor*.
2. Select *Manage Integration Content (All)*.
3. Search for the integration flow for the scenario you are configuring.
4. Find the path from the *Endpoints* tab.

The composition of an endpoint URL is **https://<host name>/<path>**.

The screenshot shows the 'Endpoints' tab in SAP. It displays a list of endpoints. The first endpoint is highlighted with a red box, showing the URL: `https://.../sap/op/443/.../sap/op/443/.../sap/op/443/...`. Below the URL are two options: 'WSDL' and 'WSDL without policies', each with a download icon.



8. Choose *Save*.

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