



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

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1 Introduction

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

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

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 Cloud Integration 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.

2 Prerequisites

2.1 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**.

2.2 Setup of SAP Cloud Integration Tenants

Ensure that your SAP Cloud Integration test and production tenants are live, and users in the tenants have the rights to copy the integration package and to configure and deploy the integration flows.

When your tenants are provisioned, you receive an email with a Tenant Management (TMN) URL. You need this URL when configuring on your SAP S/4HANA Cloud tenant the communication with the SAP Cloud Integration tenant.

To be able to deploy the security content you must be assigned the `AuthGroup.Administrator` role.

If you are a first-time user, you must first set up your users (members) and their authorizations in the SAP BTP cockpit.

3 Configuration Steps in SAP Cloud Integration

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

3.1 Deploy User Credentials

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

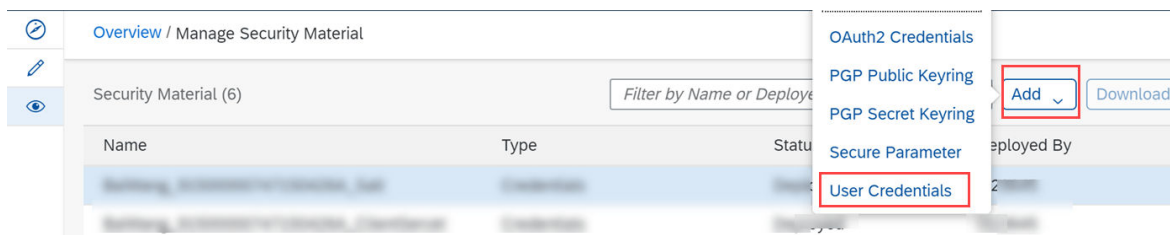
i Note

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 Cloud Integration 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 Credentials

***User:**

Password:

Repeat Password:

4. In the *Name*
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. field, create a name for your credentials.
8. Choose *Deploy*.

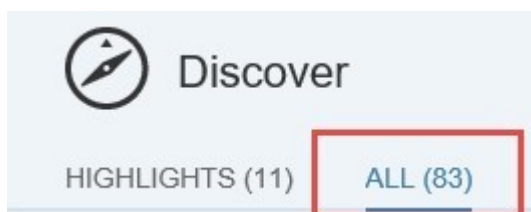
3.2 Copy Published Package

Context

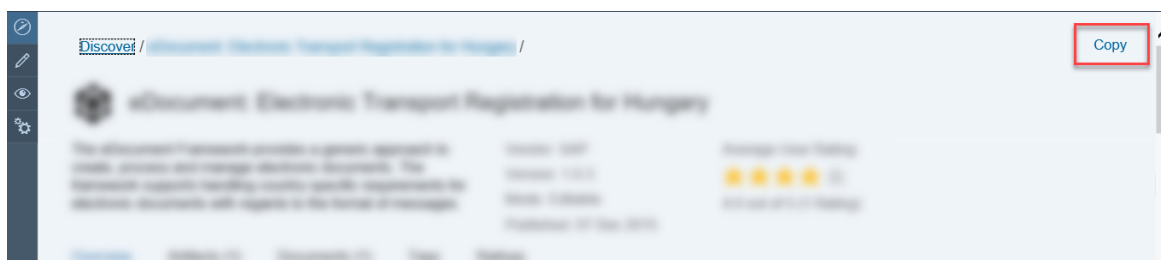
Copy the package *SAP Document and Reporting Compliance: Electronic Invoices and Delivery Notes for Turkey* to the target tenant as follows:

Procedure

1. Log in to your SAP Cloud Integration 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*.



3.3 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="border: 1px solid #ccc; 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:

Sender

Receiver

Connection

Sender:

Adapter Type:

Address:

Authorization:

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).

Sender **Receiver**

Receiver:

Adapter Type:

Connection

Address:

Credential Name:

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

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 Configure Communication System

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

Prerequisites

- Live SAP Cloud Integration 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 Cloud Integration tenant is `v1234-tmn.avt.eu1.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 your SAP Cloud Integration tenant.

You can find the host name for your SAP Cloud Integration 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 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://v1234- v1234-tmn.avt.eu1.hana.ondemand.com/soap/sa/soapenv:Envelope	
WSDL	 
WSDL without policies	 

See the following example:

EDOC_V1234

Changed By: administrator John Editing Status: Draft
 Changed On: 08.10.2018, 12:13

General Data

*System ID: Notes:

*System Name:

Technical Data

General

*Host Name: UI Host Name:

Logical System: Business System:

HTTPS Port: Use Cloud Connector:

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

The screenshot shows a configuration page with the following sections:

- Contact Information:** Includes input fields for 'Contact Person Name', 'E-Mail', and 'Phone Number'.
- OAuth 2.0 Identity Provider:** Includes an 'Enabled' checkbox.
- User for Inbound Communication:** A table with columns 'Authentication Method' and 'User Name'. The current entry shows 'No data' for both.
- User for Outbound Communication:** A table with columns 'Authentication Method' and 'User Name/Certificate/Client ID'. The current entry shows 'No data' for both. A red box highlights the '+' icon to the right of this section.

- Select an authentication method, which is used in connecting to your SAP Cloud Integration tenant. Proceed as follows:

The 'New Outbound User' dialog box is shown with the following fields and options:

- *Authentication Method:** A dropdown menu is open, showing options: 'User Name and Password' (selected), 'SSL Client Certificate', 'OAuth 1.0', 'OAuth 2.0', and 'None'.
- *User Name:** A text input field.
- *Password:** A text input field.
- Buttons: 'Cancel' and 'Create' (partially visible).

- If you select the authentication method *User Name and Password*, enter the name and password of your SAP Cloud Integration tenant user that allows communicating with SAP S/4HANA Cloud.

The 'New Outbound User' dialog box is shown with the following fields and options:

- *Authentication Method:** A dropdown menu is set to 'User Name and Password'.
- *User Name:** A text input field.
- *Password:** A text input field.
- Buttons: 'Create' and 'Cancel'.

- If you select the authentication method *SSL Client Certificate*, select the *Default Client Certificate* type and choose *Create*.

New Outbound User

*Authentication Method: SSL Client Certificate ▼

Certificate Type: Default Client Certificate ▼

Create Cancel

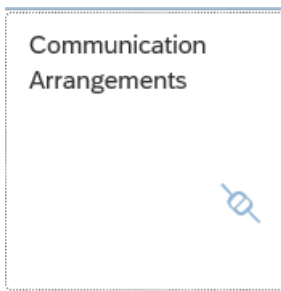
8. Choose *Save*.

4.2 Configuring a Communication Arrangement

Create a communication arrangement that describes the communication between your SAP S/4HANA Cloud tenant and SAP Cloud Integration 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 eInvoice and Incoming eInvoice Integration*)

For example, if the host name of your SAP Cloud Integration 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 Cloud Integration.

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 Cloud Integration.

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

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 URL: `https://443-.../sap/op/443/.../sap/op/443/...`. Below the URL, there are two options for downloading the WSDL: 'WSDL' and 'WSDL without policies'. Each option has a download icon (a downward arrow and a document icon).



8. Choose *Save*.

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