



Integration Guide | PUBLIC
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Portugal eInvoice: Setting Up SAP Integration Suite (SAP S/4HANA Cloud) - Cloud Foundry

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1 Introduction

You use SAP Integration Suite 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 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 **Prerequisites** 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.

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](#).

i Note

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

3 Configuration Steps in SAP Integration Suite

Required steps in SAP Integration Suite.

3.1 General Information

The package **SAP Document and Reporting Compliance: Electronic Invoicing for Portugal** contains the following integration flows:

Integration Flows for Electronic Documents for Portugal

Integration Flow Name in WebUI	Project Name/Artifact Name
Portugal Send Invoice	com.sap.GS.Portugal.SendInvoice
Portugal Receive Message	com.sap.GS.Portugal.ReceiveMessage

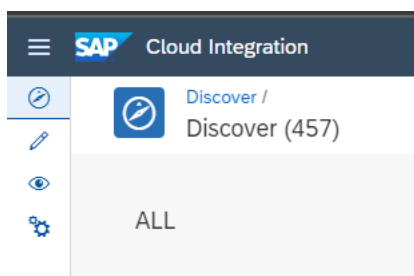
3.2 Copying Integration Flows

Context

Copy all integration flows in the package SAP Document and Reporting Compliance: Electronic Invoicing for Portugal to the target tenant as follows:

Procedure

1. In your browser, go to the WebUI of the tenant (URL: <Tenant URL>/itspaces/#shell/discover).
2. Choose **Discover > All > .**



3. Search for **SAP Document and Reporting Compliance: Electronic Invoicing for Portugal**.
4. Select the Package and choose [Copy](#).

3.3 Configuring Integration Flows

Provides instructions for configuring integration flows.

You configure the package that you have copied as described in the step before.

There are 2 [Artifacts](#) in the integration package SAP Document and Reporting Compliance: Electronic Invoicing for Portugal:

- Portugal: Send Invoice
- Portugal: Receive Message

i Note

Not all external parameters exist for each integration flow. Configure only the ones which are available.

3.3.1 Configuring Portugal: Send Invoice

Provides instructions for configuring integration flow for Portugal: Send Invoice.

Procedure

1. Choose **Actions > Configure > More** tab (in some versions it may be [Externalized Parameters](#))
 - Use the **Mode** parameter to set up the integration package usage mode:

Value	Description
TEST	To use the test system of the service provider.
PROD	To use the productive (that is, legally binding) system of the service provider.

- Use the **Enable Logging** parameter to configure whether you want to activate logging functionally for all the messages:

Value	Description
true	The system adds log files to a message.
false	Logging disabled.

- Use the `PROD_API_URL` and `TEST_API_URL` parameters to configure the URL address of the service provider API endpoint for productive and test system respectively.

Configure "Portugal Send Invoice"

Sender **More**

Type: All Parameters

Enable Logging: true

Mode: TEST

PROD_API_URL: https://[redacted]

TEST_API_URL: https://[redacted]

2. Choose the *Sender* tab.

- Use the `Address` parameter to set up the integration package address. Normally you don't have to change this field. In case you change the field, make sure to use the same address when configuring the logical ports in the next chapter.

Configure "Portugal Send Invoice"

Sender More

Sender: Sender

Adapter Type: SOAP

Connection

Address: /PortugalSendInvoice

3. Choose *Save* and *Deploy* to deploy it actively to server. Note down the URLs of the endpoints for each service.

3.3.2 Configuring Portugal: Receive Message

Provides instructions for configuring integration flow for Portugal: Receive Message.

Procedure

1. Choose **Actions > Configure > More** tab (in some versions it may be *Externalized Parameters*)
 - Select *Partner_PushMessage* as sender.
 - Under Connections, use *DCPortugal.ReceiveMessage* as user role.

Note

If you choose a user role other than *DCPortugal.ReceiveMessage*, then ensure that you use the same role name when you create a custom role.

The screenshot shows a configuration form with the following fields:

- Sender:** Partner_PushMessage
- Adapter Type:** HTTPS
- Address:** /PortugalReceiveMessages
- Authorization:** User Role
- User Role:** DCPortugal.ReceiveMessage (highlighted with a red box)

A **Select** button is located to the right of the User Role field.

2. Choose **Save** and **Deploy** to deploy it actively to server. Note down the URLs of the endpoints for each service.

3.4 Service Provider

Provides a description of the service provider.

Saphety is one of the registered service providers for signing elinvoices in Portugal. SAP establishes communication with Saphety.

eSPAP (Entidade de Servicos Partihados da Administracao Publica, I.P.) is the Portuguese government organization responsible for elInvoice. It provides the formats of elInvoice for Portugal.

A customer is an organization with tax identification. A customer is identified in Saphety's network by its country code and tax identification, for example: PT123456789. Handling multiple tax identifications is possible. Each tax identification is a different customer.

Each customer requires a provisioning process.

3.4.1 Creating a Custom Role

The integration package requires that you create a custom role for the authentication in SAP Integration Suite

Prerequisites

- You must have created a subaccount as described in [Creating a Subaccount and Enabling Cloud Foundry](#) and you did not assign the standard user role.

Procedure

- Go to the tenant URL **`https://<tenant>.cfapps.<data center>.hana.ondemand.com/itspaces`**.
- In the *Operations* view, click the *User Roles* tile.
- Choose *Add* and enter a role name (such as **`DCPortugal.ReceiveMessage`**) and a role description and click *Add*.

For more information, see [Managing Custom Roles in the Cloud Foundry Environment](#).

- To assign the custom role to the integration, go to *SAP BTP cockpit*, choose your subaccount and create an instance as described in this topic [Creating Service Instances](#).

Note

In step 3.e, enter the user role you created in step 3 as described in this document. To do so, go back to the *Operations* view, choose the user role you created and choose *Download JSON* to get the user role in JASON format. Enter the code in the text field and choose *Next*.

- Proceed with the steps to create a service key as described in [Creating Service Instances](#).

You generate a service key that holds the authentication information with the custom role.

3.4.2 Sharing Details with the Service Provider

Provides a description of how to share details with the service provider.

In SAP Integration Suite, go to **Operations > Manage Integration Content > All** and search for *Portugal Receive Message*.

Share the following details with the service provider: Service URL (see highlighted part in screenshot), Technical User ID, Password.

Portugal Receive Message

Restart Undeploy Download

Deployed On: [REDACTED] ID: com.sap.GS.Portugal.ReceiveMessage

Deployed By: [REDACTED] Version: 1.0.0

Package: SAP Document Compliance: Electronic Invoicing for Portugal

Endpoints Status Details Artifact Details Log Configuration

https://[REDACTED] hana.ondemand.com/cxf/PortugalDeleteMessages	📄
WSDL	↓ 📄
WSDL without policies	↓ 📄
https://[REDACTED] hana.ondemand.com/http/PortugalReceiveMessages	📄
https://[REDACTED] hana.ondemand.com/cxf/PortugalPullMessages	📄
WSDL	↓ 📄
WSDL without policies	↓ 📄

⚠ Caution

- If the service provider informs you with the error code “404”, check if the integration flow was successfully deployed and the URL is available to receive the messages
- If the service provider informs with the error code “403”, check the following details:
 - The technical user is assigned with an appropriate role (DCPortugal.ReceiveMessage)
 - The user credentials are correct.

3.4.3 Creating Credentials

Provides a description of how to enter the credentials from the service provider in SAP Integration Suite.

Context

To get access to the webservice provided by the service provider, the credentials received from the service provider are entered in SAP Integration Suite.

Procedure

1. Use the URL which you got during the provisioning process. The URL has the following format **https://\xxxxx.hana.ondemand.com\itspaces**.

2. Navigate to the *Manage Security* section and choose *Security Material*.
3. Choose *Add User Credentials* and enter the following data and choose *Deploy* to save the changes.

Option	Description
<i>Name</i>	<p><VAT_code>_<SystemType></p> <p>where <VAT_code> is the company's VAT in the SAP system</p> <p><SystemType> is TEST or PROD depending on the type of your tenant</p> <p>Example: PT123456789_TEST</p>
<i>Description</i>	Enter the name of the company.
<i>User</i>	Enter the username from the service provider.
<i>Password</i>	Enter the password received from the service provider.

4. Choose *Deploy* to save the changes.

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. 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 to the business catalog role `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.

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*.

New Outbound User

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

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

Create Cancel

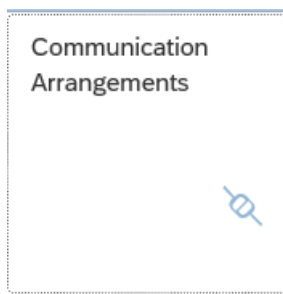
8. Choose *Save*.

4.2 Configuring Communication Arrangement

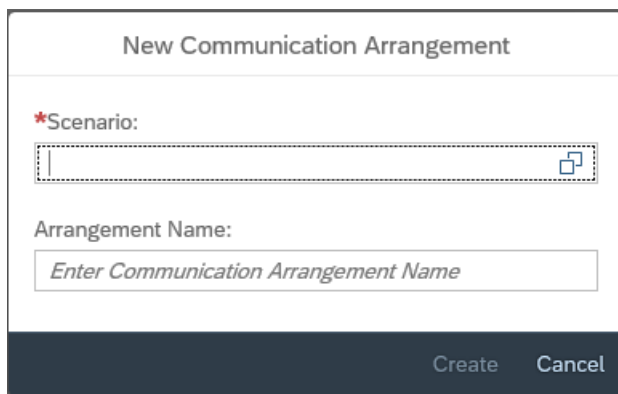
Configuration steps for SAP S/4HANA Cloud Communication Arrangement.

Procedure

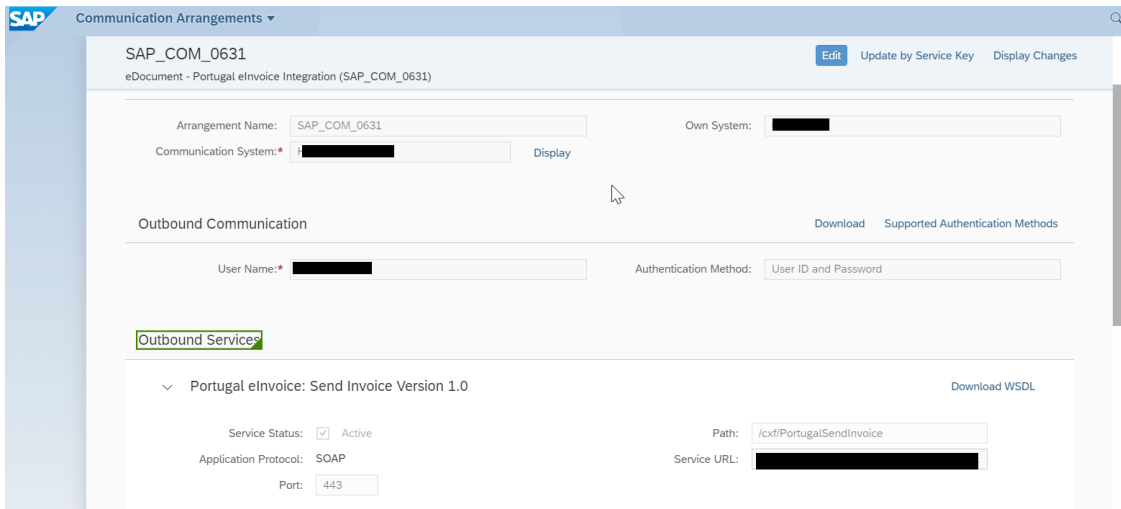
1. Login to your S/4HANA Cloud tenant with the Cloud User.
2. Find and launch the application *Communication Arrangements*.



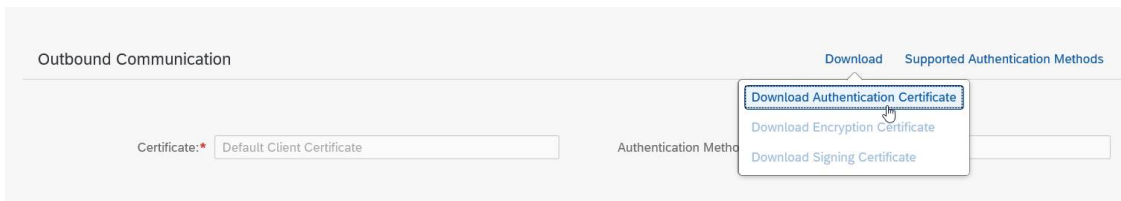
3. Choose *New*. In the new pop-up window, enter the scenario *eDocument - Portugal eInvoice Integration* (SAP_COM_0631). This is the scenario designated for communication with the tax authority via SAP Integration Suite package) and an Arrangement Name. For Communication Arrangement name it is recommended to choose a name like SAP_COM_0631_<name of SAP Integration Suite tenant>.

A screenshot of the 'New Communication Arrangement' pop-up window. The window has a title bar 'New Communication Arrangement'. Below the title bar, there is a field labeled '*Scenario:' with a text input box containing a dashed border and a small square icon on the right. Below this is a field labeled 'Arrangement Name:' with a text input box 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 and the authentication method, relevant to the communication system.
 - If the authentication is by user ID, then select *User Name and Password* from the *Outbound Communication* list.

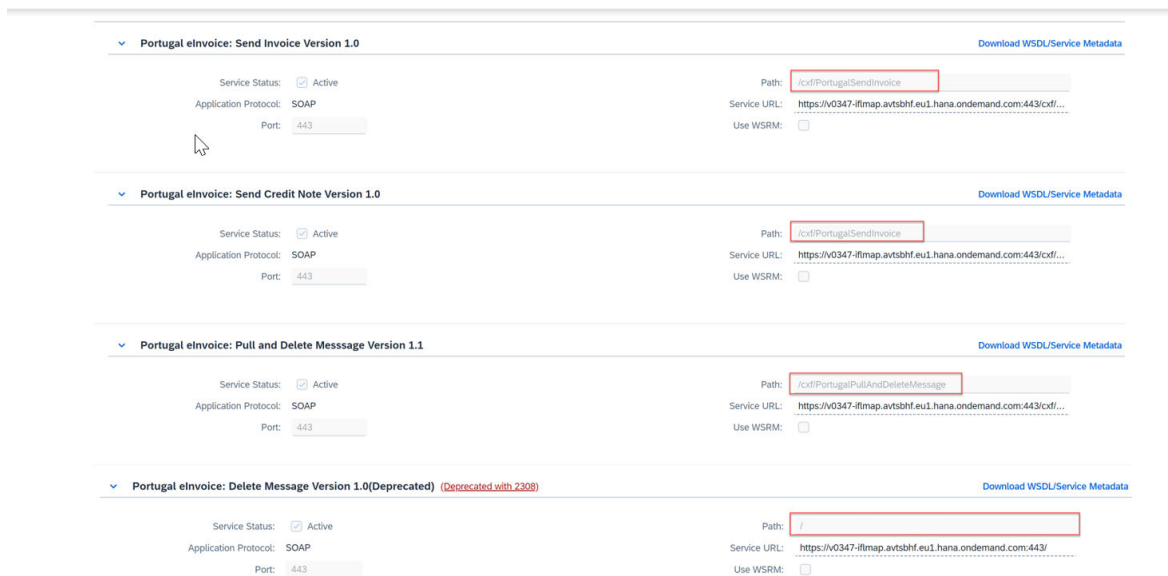


- If you use a certificate-based authentication, then download this certificate by choosing *Download Authentication Certificate*:



You must configure this certificate in SAP Integration Suite too. For that you create a service instance using the required grant_type as explained in [Creating a Service Instance in the Cloud Foundry Environment](#). After the instance creation, you create the service key using the certificate uploaded to the SAP S/4HANA Cloud as explained in [Defining a Service Key for the Instance in the Cloud Foundry Environment](#).

6. Scroll down and enter the path for your integration flow URL for all outbound services.



i Note

The outbound service **Portugal eInvoice: Delete Message Version 1.0 (Deprecated)** will be deprecated as of release SAP S/4HANA Cloud 2308. Later, it will also be removed from the communication arrangement.



7. Choose *Save*.

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