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# **Document Compliance for Spain Electronic Invoicing - SAP Cloud Platform Integration Guide (S/4HANA Cloud)**

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# 1 Introduction

You use SAP Cloud Platform Integration to establish the communication with external systems and transfer to them the electronic documents you have created using the eDocument solution. This document lists the required setup steps you perform in the SAP S/4HANA Cloud\* and the SAP Cloud Platform Integration tenant so that the integration between the systems work.

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

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

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

When your tenants are provisioned, you receive the Tenant Management (TMN) URL. You need this URL for the configuration of the SAP S/4HANA Cloud.

### 2.2 Set Up of Secure Connection

You establish a trustworthy SSL connection to set up a connection between the S/4HANA Cloud and the SAP Cloud Platform Integration. For more information, refer to [Connecting a Customer System to Cloud Integration](#) available in the SAP Cloud Platform Integration product page. Additionally you can check this [blog](#).

For more information, refer to [Operations guide for SAP Cloud Platform Integration](#)

#### i Note

If you encounter any issues in the information provided in the SAP Cloud Platform Integration product page, open a customer incident against the `.LOD-HCI-PI-OPS` component.

### 2.3 Client Certificate


SAP Cloud Platform Integration uses a private/public key pair plus client certificate to authenticate the communication with external systems. You need to provide the SSL certificate recognized by the tax authority and the pair of private/public key. This information must be available in the keystore on your SAP Cloud Platform Integration tenant.

Currently you need to request SAP to upload your own private and public key pair and the SSL certificate to the keystore on your tenant.

To do so, open a support ticket against the component `LOD-HCI-PI-OPS`.

## 2.4 Registration at FACe

You have completed the registration at the General Point of Entry of Electronic Invoices of the General State Administration (FACe) and the following data is available:

- Certificate used for digital signature (private key and password)
- Public certificate to verify the SOAP response deployed on SAP Cloud Platform Integration tenant's keystore. Follow the steps below to generate the public certificate:
  1. Download the appropriate certificate from the FACe Portal.  
At the time of publishing this document, the relevant link is <http://administracionelectronica.gob.es/ctt/face/descargas#.VOsMYvmG-4I> 

2. Search for the certificate NUEVO Certificado para WS as shown in the example below:

## FACe - Punto General de Entrada de Facturas Electrónicas de la AGE



General Info. Adicional **Área Descargas** Indicadores

**NOTA** : Está accediendo al contenido **público** del área de Descargas de esta solución. Acceda a través de la **red SARA** con un **usuario registrado de las Administraciones Públicas** y podrá encontrar aquí disponibles más contenidos específicos para las Administraciones Públicas.

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Documentación para usuarios - Organismos

Documentación para usuarios - Proveedores

**Documentación para integradores**

### NUEVO Certificado para WS - PRUEBAS

Se publica el nuevo certificado para el entorno de Pruebas con el que FACe firmará las respuestas SOAP. Dicho certificado entrará en vigor el 18 de Enero de 2019 y estará vigente hasta Diciembre de 2021

↓ [SELLO ENTIDAD SGAD PRUEBAS crt \(3 KB · TXT\)](#)

Fecha de modificación: 14/01/2019

### NUEVO Certificado para WS - PRODUCCIÓN

Se publica el nuevo certificado para el entorno de Producción con el que FACe firmará las respuestas SOAP. Dicho certificado entrará en vigor el 18 de Enero de 2019 y estará vigente hasta Marzo de 2020.

↓ [SELLO DE ENTIDAD SGAD crt \(2 KB · TXT\)](#)

Fecha de modificación: 14/01/2019

## i Note

The screenshot is from March, 2019. SAP cannot guarantee that the layout of the page and the name of the certificate remain constant. SAP is not responsible for the content of external web pages.

3. Copy the content of the certificate into a text file and save it with **.cer** extension.
- Public certificate “\*.redsara.es” to communicate with FACe.  
These certificates can be obtained from the respective contacts from FACe.

# 3 Configuration Steps in SAP Cloud Platform Integration

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

## 3.1 General Information

The package **eDocument: Electronic Invoicing for Spain** contains the following iFlows:

iFlows for Spain Electronic Invoicing

iFlow Name in WebUI	Project Name/Artifact Name
<i>Send Invoice</i>	com.sap.GS.Spain.SendInvoice
<i>Get Status</i>	com.sap.GS.Spain.GetStatus
<i>Cancel Invoice</i>	com.sap.GS.Spain.CancellInvoice

## 3.2 Deploying Certificates and Credentials

You deploy the certificates and the credentials to the SAP Cloud Platform Integration tenants.

1. Deploy the certificate (as private key with alias) in the tenants JAVA\_KEYSTORE.  
To allow the iFlows to be updated with minimal adaptation effort, use the following alias for the private key:  
Private key alias: **spainsignaturekey**

### i Note

If you deploy the private key with another alias, you must configure the alias name in the iFlow parameters. For information about how to configure the alias name, see [Configuring and Deploying Integration Flows \[page 10\]](#).

2. Deploy the public certificate that you generated in the [Registration at FAcE \[page 5\]](#) section into the tenants JAVA\_KEYSTORE. Deploy the public certificate for staging in the TEST tenants JAVA\_KEYSTORE and the public certificate for production in the PRODUCTION tenants JAVA\_KEYSTORE.



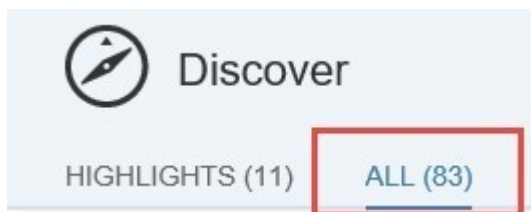
## 3.3 Copying Integration Flows

### Context

Copy all iFlows in the package eDocument: Electronic Invoicing for Spain to the target tenant as follows:

### Procedure

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



3. Search for **eDocument: Electronic Invoicing for Spain**.

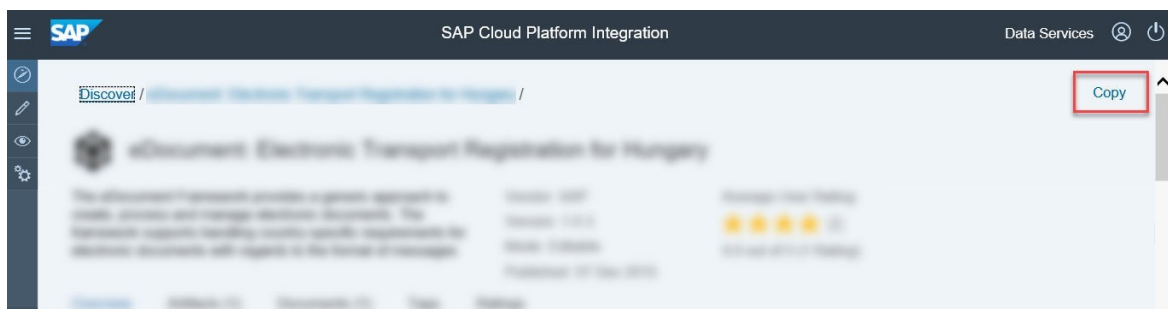
1 package(s) found



#### eDocument: Electronic Invoicing for Spain

... approach to create, process and manage **electronic** documents. The framework supports handling country-specific requirements **for electronic** documents with regards to the ...

4. Select the Package and choose *Copy*.



## 3.4 Configuring and Deploying Integration Flows

### Context

You configure the package that you have copied as described in [Copying Integration Flows \[page 9\]](#). For each iFlow, you must maintain several parameters as described below.

### Procedure

1. Choose *Design* from the upper left corner of the page.
2. Click on the *eDocument: Electronic Invoicing for Spain* package.
3. Go to the *Artifacts* tab page.
4. Choose **► Actions ► Configure ▾** for the artifact you are configuring.
5. Choose the *Sender* tab and make settings as follows:
  - *Authorization* field: Select **User Role** or **Client Certificate**
  - *Client Certificate* only: Upload your client certificates. *Subject DN* and *Issuer DN* are filled from the certificate information.

See the following example:

The screenshot shows the configuration interface for the 'Sender' tab. It includes three dropdown menus: 'Sender' set to 'ERP', 'Adapter Type' set to 'SOAP', and 'Authorization' set to 'User Role'. The 'Authorization' field is highlighted with a red border.

6. Choose the *Receiver* tab and make settings as follows:
  - Maintain the receiver URL in the *Address* field:

Environment	URL
TEST	<a href="https://se-face-webservice.redsara.es/facturasspp">https://se-face-webservice.redsara.es/facturasspp</a>
PRODUCTION	<a href="https://webservice.face.gob.es/facturasspp">https://webservice.face.gob.es/facturasspp</a>

- *Private Key Alias for Signing* field: The default alias for the private key is **spainsignaturekey**. If you deployed the private key with a different alias, definit it here.

See the following example:

The screenshot shows the configuration interface for an iFlow receiver. The 'Receiver' tab is selected, and the 'Parameters' section is visible. The settings are as follows:

- Receiver: FACE
- Adapter Type: SOAP
- CONNECTION: Address: https://example.com/sspp
- WS-SECURITY: WS-Security Configuration: Via Manual Configuration in Channel; WS-Security Type: Sign Message
- Private Key Alias for...: spainsignaturekey

7. Choose the *Parameters* tab and make settings as follows:

*Correo* field: Enter the e-mail ID for all communications with FACE.

#### **i** Note

The iFlows *Get Status* and *Cancel Invoice* do not have the *Parameters* tab page.

8. Choose *Save* and *Deploy* to deploy it actively to server. Note down the URLs of the endpoints for each service. Provide the endpoint URLs for FACE in the externalized parameters of the iFlows for the test and productive tenants.

# 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 Communication System

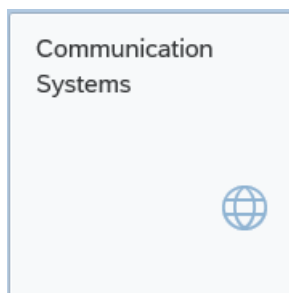
Configuration steps for SAP S/4HANA Cloud Communication System.

### Prerequisites

1. Live SAP Cloud Platform Integration test or productive tenant must be available.
2. Communication management setups are not transportable and must be explicitly maintained in quality and production systems.
3. The SAP S/4HANA Cloud user, who is following this guide, must be assigned to the business catalog role SAP\_BCR\_CORE\_COM (Communication Management) for accessing communication management application.

### Procedure

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



3. Choose *New*, and in the pop-up window, enter the *System ID* and *System Name*. Naming convention of *System ID* is EDOC\_<name of SAP Cloud Platform Integration tenant>, for example, if the tenant host name is *v1234-tmn.avt.eu1.hana.ondemand.com*, then System ID is *EDOC\_V1234*.

### New Communication System

\*System ID:

\*System Name:

Create Cancel

4. Choose *Create*.
5. On the next page, enter the host name and port of your tenant. Host name can be entered by looking up in the SAP Cloud Platform Integration Web UI.

#### 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:

6. Scroll down, and choose + next to User for *Outbound Communication*.

#### Contact Information

Contact Person Name:       Phone Number:

E-Mail:

---

#### OAuth 2.0 Identity Provider

Enabled:

---

User for Inbound Communication	+							
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Authentication Method</th> <th style="text-align: right;">User Name</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: center;">No data</td> </tr> </tbody> </table>	Authentication Method	User Name	No data					
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<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">User for Outbound Communication</th> <th style="text-align: right;">+</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid #ccc;"> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Authentication Method</th> <th style="text-align: right;">User Name/Certificate/Client ID</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: center;">No data</td> </tr> </tbody> </table> </td> <td style="text-align: right; vertical-align: middle;"><span style="border: 1px solid red; padding: 2px;">+</span></td> </tr> </tbody> </table>	User for Outbound Communication	+	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Authentication Method</th> <th style="text-align: right;">User Name/Certificate/Client ID</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: center;">No data</td> </tr> </tbody> </table>	Authentication Method	User Name/Certificate/Client ID	No data		<span style="border: 1px solid red; padding: 2px;">+</span>
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Authentication Method	User Name/Certificate/Client ID							
No data								

7. In the new pop-up window, select the appropriate authentication method to connect to your SAP Cloud Platform Integration tenant, as described in the Implementation Guide.

**New Outbound User**

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

\*User Name:

\*Password:

Options in dropdown menu: User Name and Password, SSL Client Certificate, OAuth 1.0, OAuth 2.0, None

Buttons: Cancel

- For authentication method User Name and Password, just add the login and password of the tenant user, which has roles, acceptable by integration flow for your implementation package.

**New Outbound User**

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

\*User Name:

\*Password:

Buttons: Create, Cancel

- For authentication method SSL Client Certificate, certificate type Default Client Certificate is available. Select *Default Client Certificate* type and choose *Create*.

**New Outbound User**

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

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

Buttons: Create, Cancel

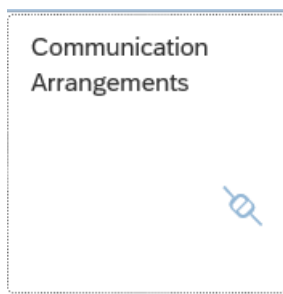
8. Choose *Save*.

## 4.2 Configuring Communication Arrangement

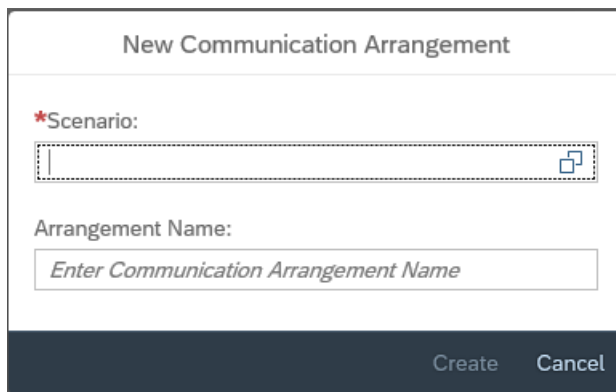
Configuration steps for SAP S/4HANA Cloud Communication Arrangement.

### 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 `SAP_COM_0419` (which is the one designated for communication with the tax authority via SAP Cloud Platform Integration package) and an *Arrangement Name*. For arrangement name, it is recommended to choose a name like `SAP_COM_0419_<name of SAP Cloud Platform Integration tenant>`, for example, `SAP_COM_0419_V1234` for tenant host name beginning with `v1234-tmn`.

A screenshot of the 'New Communication Arrangement' pop-up window. The window has a dark header with the title 'New Communication Arrangement'. Below the header, there is a field for '\*Scenario:' with a value of 'SAP\_COM\_0419' and a small square icon to its right. Below that is a field for 'Arrangement Name:' with a value of '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 the authentication is by User ID, then select *User Name and Password* from the *Outbound Communication* list.

**Common Data**

Arrangement Name:  Own System:

\*Communication System:

---

**Outbound Communication** [Download](#) [Supported Authentication Methods](#)

\*User Name:  Authentication Method:

- If the authentication method is Default Client Certificate, download the certificate here and upload it to SAP Cloud Platform Integration.

**Common Data**

Arrangement Name:  Own System:

\*Communication System:

---

**Outbound Communication** [Download](#) [Supported Authentication Methods](#)

\*Certificate:   Authentication Method:

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

**Outbound Services**

▼ **Spain elinvoice cancel services version 1.1** [Download WSDL](#) [Check Connection](#)

Service Status:  Active Path:

Application Protocol: SOAP Service URL:

Port:

---

▼ **Spain elinvoice get status service version 1.1** [Download WSDL](#) [Check Connection](#)

Service Status:  Active Path:

Application Protocol: SOAP Service URL:

Port:

---

▼ **Spain elinvoice send invoice service version 1.1** [Download WSDL](#) [Check Connection](#)

Service Status:  Active Path:

Application Protocol: SOAP Service URL:

Port:

7. Choose [Save](#).



# 5 Testing the Communication

## Context

To test the communication, we recommend that you create and send an eDocument from SAP S/4HANA Cloud. The way you do this depends on how the system is configured to generate and send eDocuments. Follow the steps described below.

## Procedure

1. Create a relevant document for eDocument for Spain (for example, an invoice).

### i Note

If the system is configured to generate an eDocument for the selected document type, an instance of the eDocument will be created as soon as the document is posted (for example, when you save a billing document).



2. Go to the *eDocument Cockpit* app.
3. From the *Result Overview*, select the relevant process for Spain.
4. Select the eDocument and choose *Submit* to trigger the communication with SAP Cloud Platform Integration. The system displays the eDocuments that match the search on the right side of the Cockpit.
5. From the list of eDocument displayed, find the one that you just created and check the following:
  - You can double-check if the message went through on the SAP Cloud Platform Integration tenant
  - You can double-click on the *Interface Message GUID* field to navigate to AIF and look at the log. Communication errors will be displayed there.

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