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Spain SII: Setting Up SAP Cloud Platform Integration (SAP S/4HANA Cloud) - Cloud Foundry

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2 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 SAP Document Compliance. 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.

3 Prerequisites

Before you start with the activities described in this document, ensure that you have performed all initial setup steps described in [Initial Setup of SAP Cloud Platform Integration in Cloud Foundry Environment](#) . After completing the Provisioning the Tenant step, you have created your own tenant URL. This is the URL needed to complete the steps described in the Configuration Steps section of this guide.

3.1 Deploy Certificates for SAP Cloud Platform Integration with Tax Agency Communication

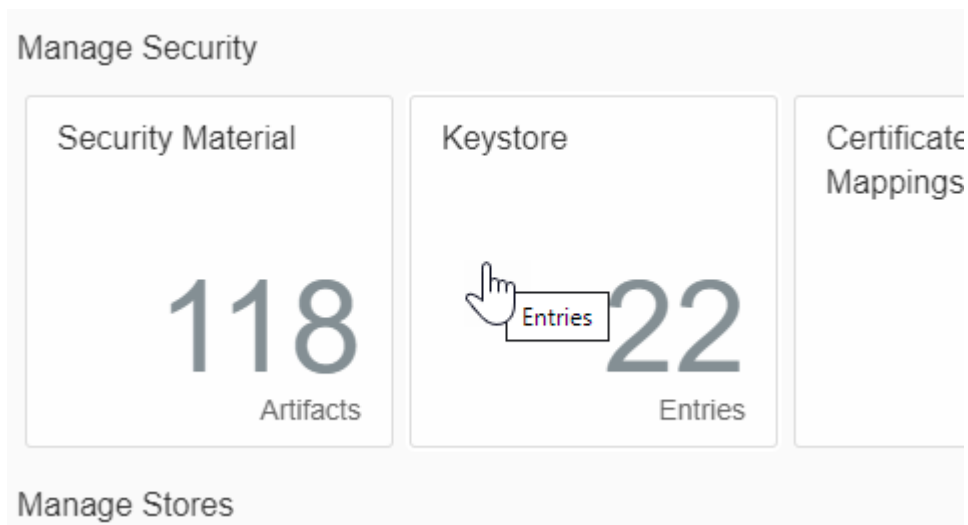
To establish a connection between the SAP Cloud Integration and tax agency servers, you must obtain several certificates, and then deploy these to the SAP Cloud Platform Integration tenant. For more information about certificate deployment in SAP Cloud Platform Integration, see SAP Note [2469460](#).

3.2 Add Certificate for Client Certificate Authentication

SAP Cloud Platform Integration uses a client certificate to authenticate the communication with external systems. For the SII scenario, you must include certificates that are recognized by the relevant tax agency (AEAT or regional tax agency). Optionally, the tax agency also supports certificates for the electronic seal (“certificado de sello”). This certificate is specific to your company’s Fiscal Identity Number (NIF) and/or Tax Identity Number.

To add the certificate, proceed as follows:

1. Collect the key pair from the regional tax office. This key pair is tax ID-specific.
2. Use the tenant URL you created as defined in the prerequisites of this document. The URL has the following format: <https://<tenant>.cfapps.<data center>.hana.ondemand.com>, where <tenant> corresponds to the dynamic part and is unique for each subaccount and <data center> corresponds to the data center you are using.
3. In the *Operations* view, choose *Keystore* under *Manage Security*.



4. Choose **Create > Key Pair** and create the key pair that you collected from the tax office.

Note

- We recommend that you use private key alias in form of **spainsiixxxx**, where **xxxx** is the company code.
- From version 3.0.0 onwards, the dynamic private key Alias is available, that is, you can choose to use an alias in form of **spainsiprivatekey_xxxxx**, where **spainsiprivatekey** will be the suffix, and **xxxxx** will be your company NIF. If you choose to use the dynamic private key Alias, the system will concatenate the suffix and will extract your company NIF from the header of XML document.

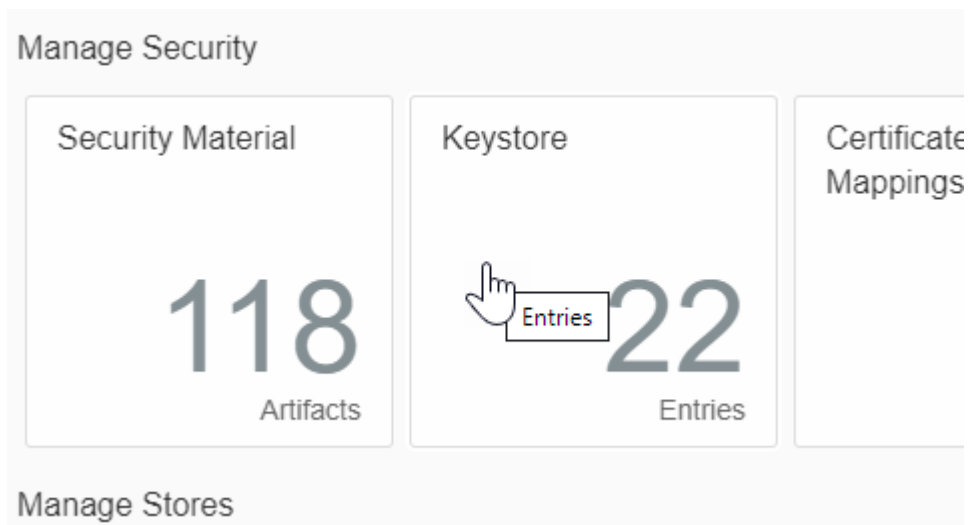
3.3 Add Public Certificates of Relevant Tax Agency

To establish an SSL connection to the tax agency server, the SAP Cloud Platform Integration needs to trust the SSL certificate from the relevant tax agency servers. To achieve this, you must download the entire certificate chain from the relevant server and upload it to the SAP Cloud Platform Integration tenant. Please refer to the relevant tax agencies' sites or the relevant governmental SII support teams to obtain relevant certificate chains.

Another option is to use third-party software, which has the capability of examining and downloading site certificates like browsers or key store explorers. The exact procedure of downloading the SSL certificate depends on third-party software and the operating system that you use.

To add the certificate, proceed as follows:

1. Refer to the regional tax authority guide to get the URL to the tax authority.
2. Use the tenant URL you created as defined in the prerequisites of this document. The URL has the following format: **https://<tenant>.cfapps.<data center>.hana.ondemand.com**, where **<tenant>** corresponds to the dynamic part and is unique for each subaccount and **<data center>** corresponds to the data center you are using.
3. In the *Operations* view, choose *Keystore* under *Manage Security*.



4. Choose **► Add ► Certificate ►** to add the certificate.

i Note

You can find the list of servers of the regional tax authorities in the document [Regional Support Guide](#), included in this integration package.

4 Configuration Steps in SAP Cloud Platform Integration

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

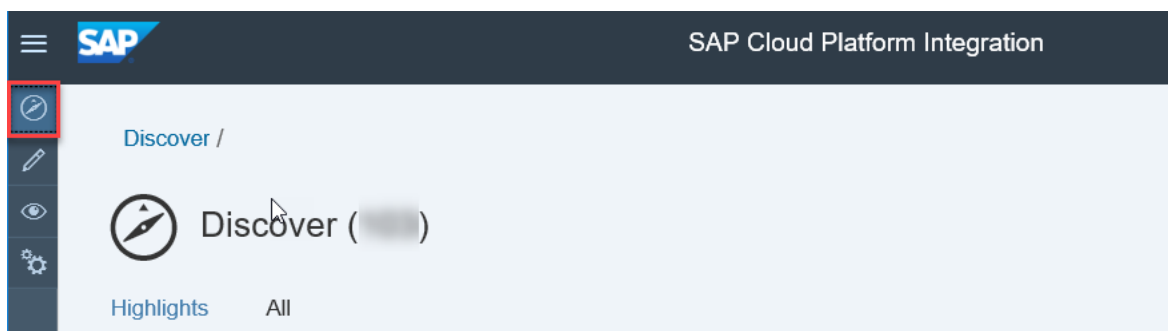
4.1 Copy Published Package

Context

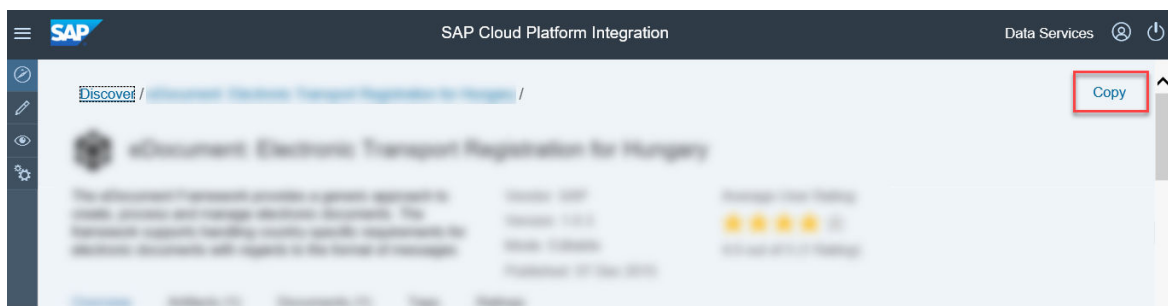
Copy all iFlows in the package *SAP Document Compliance: Tax Register Books for Spain* to the target tenant as follows:

Procedure

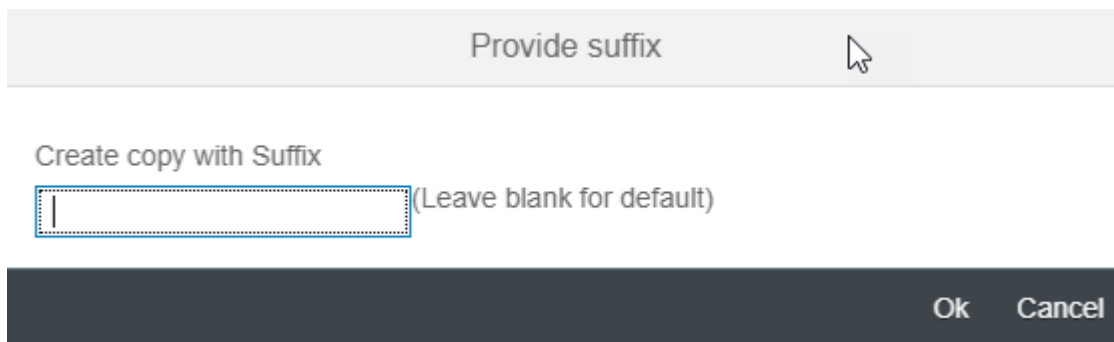
1. In the *Discover* section of your tenant, select the package *SAP Document Compliance: Tax Register Books for Spain*.



2. Select the package and choose *Copy*.



3. In the *Provide suffix* dialog box, leave the field blank and choose *Ok*.



Provide suffix

Create copy with Suffix

(Leave blank for default)

Ok Cancel

4.2 Configure Integration Flow

4.2.1 Configure Integration Flow - Communicate to SII

To set up communication with the tax authorities in Spain, you must configure the integration flow “Communicate to SII” as described in this section.

Context

You must repeat the steps below for every package that you copied as described in section [Copy Published Package \[page 8\]](#).

Procedure

1. Choose *Design* from the upper left corner of the page.
2. Click on the package that you copied from the original *Document Compliance: Tax Register Books for Spain* package.
3. Go to the *Artifacts* tab page.
4. Choose **► Actions ► Configure ►** for the *Communicate to SII* integration flow.

SAP Document Compliance: Electronic Tax Register Books for Spain

This integration package provides content required to integrate SAP Cloud Platform Integration with SAP Document Compliance and the Spanish Tax Agency's system Suministro Inmediato de Informacion del IVA (SII). Vendor: SAP Mode: Editable
Version: 4.0.0

Overview **Artifacts (2)** Documents (4) Tags

Actions

| <input type="checkbox"/> | Name | Type | Version |
|--------------------------|---|------------------|---------|
| <input type="checkbox"/> | Communicate to Canary Islands Sending VAT Registration books from SAP ERP to SII Modified | Integration Flow | Draft |
| <input type="checkbox"/> | Communicate to SII This is a single, multi-purpose integration flow, which does all types of requests Unmodified | Integration Flow | 3.0.4 |

Context menu: Copy, View metadata, Download, **Configure**, Deploy

i Note
The version of your artifact may differ from the one shown on the figure above.

- Choose the **Sender** tab and make settings as follows:
 - Update the connection address to a name that can be linked easily to the company code that uses it (for example, **/SpainSIICommunicate-ES01** for the company code ES01):

Sender More

Sender:

Adapter Type:

Connection

Address:

- Authorization** field: Select the required authorization (**User Role** or **Client Certificate**) that has been configured for the connection between the system and the tenant.

- For the *User Role* authorization, select the relevant user role (for example, **ESBMessaging.send**):

Connection

Address:

Authorization:

User Role:

- For the *Client Certificate* authorization, provide the certificate credentials, for example:

Connection

Address:

Authorization:

| Subject DN | Issuer DN |
|---|--|
| <input type="text" value="<subject-dn>"/> | <input type="text" value="<issuer-dn>"/> |
| <input type="button" value="Select"/> | |

- If required, increase the body size (that is, the maximum XML file size) to the appropriate value:

Connection

Address:

Authorization:

User Role:

Conditions

Body Size (in MB):

Attachments Size (in MB):

6. Choose the *More* tab and make settings as follows:

i Note

- In some versions, this tab may have the title *Parameters*.
- The layout under this menu tab may differ from the screenshot provided.
- In the *Private Key Alias* field, update the name to match the name that you have defined in section .

i Note

From version 3.0.0 onwards, the dynamic private key alias is available.

- In the *addNifftoKeyAlias* field, enter **YES** if you want to use the dynamic private key alias, then update the *keyAliasSuffix* field with the name that matches the name that you have defined in section . The system will concatenate the *keyAliasSuffix* field with the NIF of your company automatically. By default, the *addNifftoKeyAlias* field is set to **NO**. In that case, you must also update the *keyAliasSuffix* field with the name that matches the name that you have defined in section .

The screenshot shows a configuration form with the following fields and values:

- Sender: More
- Type: All Parameters
- addNifftoKeyAlias: NO
- keyAliasSuffix: spainsiiprivatekey
- loggingEnabled: NO
- reportTo: Spain
- usageMode: TEST

- Use the *usageMode* field to set up the integration package usage mode:

| Value | Acceptable aliases | Description |
|-------|------------------------|--|
| TEST | | Uses the test system of the tax agency |
| PROD | PRODUCTIVE, PRODUCTION | Uses the productive (that is, legally binding) system of the tax agency |
| ESEAL | E-SEAL, PROD-SEAL | Uses the productive system that accepts certificate of the electronic seal |

i Note

Submitting documents with an SII Version below 1.0 to productive servers will cause an error. For SII Versions below 1.0, only test services are provided.

- Use the *loggingEnabled* field for switching logging on and off:

| Value | Description |
|-------|--|
| YES | Enable logging of the request and response messages |
| NO | Disable logging of the request and response messages |

- Use the *reportTo* field to define the regional tax authority to which you want to submit your reports.

The screenshot shows a configuration window for a 'Sender'. A 'More' button is visible. The 'Type' dropdown is set to 'All Parameters'. The following fields are present:

- addNiftoKeyAlias:** NO
- keyAliasSuffix:** spainsiiprivatekey
- loggingEnabled:** NO
- reportTo:** Spain (highlighted with a red box)

i Note

By default, the reports are submitted to the central tax authority (Agencia Estatal de Administración Tributaria). For the list of the values for the regional tax authorities and supported functions, refer to the document "Submitting to the regional tax authorities" included in this package.

7. Select *Save* and *Deploy* to save your configuration and to deploy it actively to server, respectively.

i Note

On some tenants, depending on their version, after pressing these buttons, a screen with warning messages may occur, similar to the one below. Ignore these messages, and press the *Close* button, as they are related to the payload attachments; currently the SII process either does not support or require message attachments (for example, scanned copies of invoices) in any stage of processing and communication.

| Messages (3) | | |
|--------------|----------|--|
| Type | Location | Message |
| ⚠ | | Router drops attachment in payload from SOAP 1.x Sender. Router does not support payload attachment. |
| ⚠ | | Process Call drops attachment in payload from SOAP 1.x Sender. Process Call does not support payload attachment. |
| ⚠ | | Process Call drops attachment in payload from SOAP 1.x Sender. Process Call does not support payload attachment. |

Close

4.2.2 Configure Integration Flow - Communicate to Canary Islands

To set up communication with the tax authorities in the Canary Islands, you must configure the integration flow “Communicate to Canary Islands” as described in this section.

Repeat the steps described in section [Configure Integration Flow - Communicate to SII \[page 9\]](#) for the *Communicate to Canary Islands* artifact as all the steps are the same for the Canary Islands.

i Note

For the Canary Islands, you must also choose **Spain** in the *Report to* field under the *More* tab.

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 Configure Communication System

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

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 SCPI_SII_<name of SAP Cloud Platform Integration tenant>, for example, if the tenant host name is *example-tmn.avt.eu1.hana.ondemand.com*, then System ID is *SCPI_SII_EXAMPLE*.

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.

SCPI_SII_EXAMPLE
SCPI_SII_EXAMPLE

Changed By: Example Administrator Editing Status: Draft
Changed On: 11/21/2019, 16:00

General ▾ Users for Inbound Communication Users **+** Outbound Communication Business Partners Communication Arrangements

General Data

*System ID: Notes:

*System Name:

Technical Data

General

*Host Name: UI Host Name:

Logical System: Business System:

Port:

Is Hub System:

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 +

| 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 Cloud Platform Integration tenant. Proceed as follows:

New Outbound User

*Authentication Method: ▾

*User Name:

*Password:

User Name and Password

SSL Client Certificate

OAuth 1.0

OAuth 2.0

None

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 Cloud Platform Integration. For more information, see [Creating Service Instances](#).

The screenshot shows a dialog box titled "New Outbound User". It contains three fields:

- *Authentication Method: A dropdown menu with "User Name and Password" selected.
- *User Name: An empty text input field.
- *Password: An empty text input field.

 At the bottom right, there are two buttons: "Create" and "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 Cloud Platform Integration 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](#).

The screenshot shows a dialog box titled "New Outbound User". It contains two fields:

- *Authentication Method: A dropdown menu with "SSL Client Certificate" selected.
- Certificate Type: A dropdown menu with "Default Client Certificate" selected.

 At the bottom right, there are two buttons: "Create" and "Cancel".

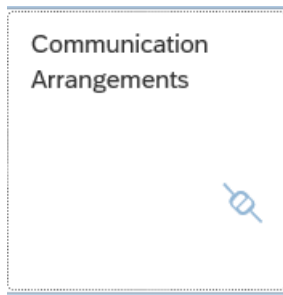
8. Choose *Save*.

5.2 Configure 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_0225` (which is the one designated for communication with the Spanish tax authorities via SAP Cloud Platform Integration package) and an [Arrangement Name](#). For arrangement name, it is recommended to choose a name like `SAP_COM_0225_<name of SAP Cloud Platform Integration tenant>`, for example, `SAP_COM_0225_EXAMPLE` for tenant host name beginning with `example-trm`.

A dialog box titled "New Communication Arrangement". It has two input fields: "*Scenario:" with a value of "SAP_COM_0225" and a copy icon; and "Arrangement Name:" with a placeholder "Enter Communication Arrangement Name". At the bottom are "Create" and "Cancel" buttons.

4. Choose [Create](#).
5. In the new window, choose the communication system created in the previous step (for example, `SCPI_SII_EXAMPLE`) and the authentication method, relevant to the communication system.

i Note

- If you use SSL certificate-based authentication, download the certificate using the [Download](#) button and upload it to SAP Cloud Platform Integration under [Manage Keystore](#).
- You may need multiple communication arrangements for the same scenario ID but for different company code values. For example, your company works with multiple regions that have different company code setup. In this case, use the [Company Code](#) parameter to specify the company code for which you are configuring the communication arrangement.

SAP_COM_0225

Scenario ID: [SAP_COM_0225](#)
Scenario:

Draft Last Changed By: Example Administrator
Draft Last Changed On:

Editing Status: Draft

Common Data

Arrangement Name:

Own System:

*Communication System: [Display](#)

Additional Properties

Property Name

Property Value

Company Code

Outbound Communication

[Download](#) [Supported Authentication Methods](#)

*User Name:

Authentication Method:

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

Outbound Services

Spain SII Incoming Invoices

Service Status: Active

Application Protocol: SOAP

Port:

Path:

Service URL:

Spain SII Outgoing Invoices

Service Status: Active

Application Protocol: SOAP

Port:

Path:

Service URL:

Spain SII: Outgoing Payment for Vendors with VAT Cash Accounting

Service Status: Active

Application Protocol: SOAP

Port:

Path:

Service URL:



7. Choose [Save](#).

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