



Integration Guide | PUBLIC  
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# Spain SII Setting Up SAP Cloud Integration (SAP S4HANA Cloud) - Neo environment

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# 1 Introduction

You use SAP Cloud Integration to establish the communication with external systems and transfer to them the electronic documents you have created using the [SAP Document and Reporting Compliance](#). This document lists the required setup steps you perform in the SAP S/4HANA Cloud and the SAP Cloud Integration tenant so that the integration between the systems work.

The setup steps are typically done by an SAP Cloud Integration consulting team, which is responsible for configuring the SAP S/4HANA Cloud 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 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 the configuration, ensure that you have performed the steps described in this section.

### 2.1 Set Up SAP Cloud Integration Tenants

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

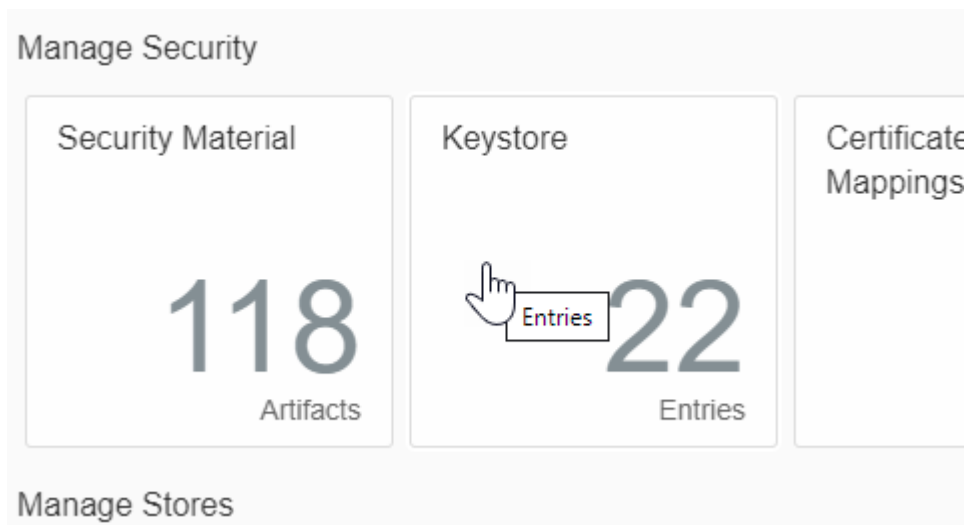
To establish a connection between the SAP Cloud Integration and tax agency servers, you must obtain several certificates, and then deploy these to the SAP Cloud Integration tenant. For more information about certificate deployment in SAP Cloud Integration, see SAP Note [2469460](#).

### 2.3 Add Certificate for Client Certificate Authentication

SAP Cloud 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 URL emailed to you with your SAP Cloud Integration subscription details. The URL has the following format: `https://xxxxx.hana.ondemand.com/itspaces`.
3. In the *Operations* view, choose *Keystore* under *Manage Security*.



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

#### Note

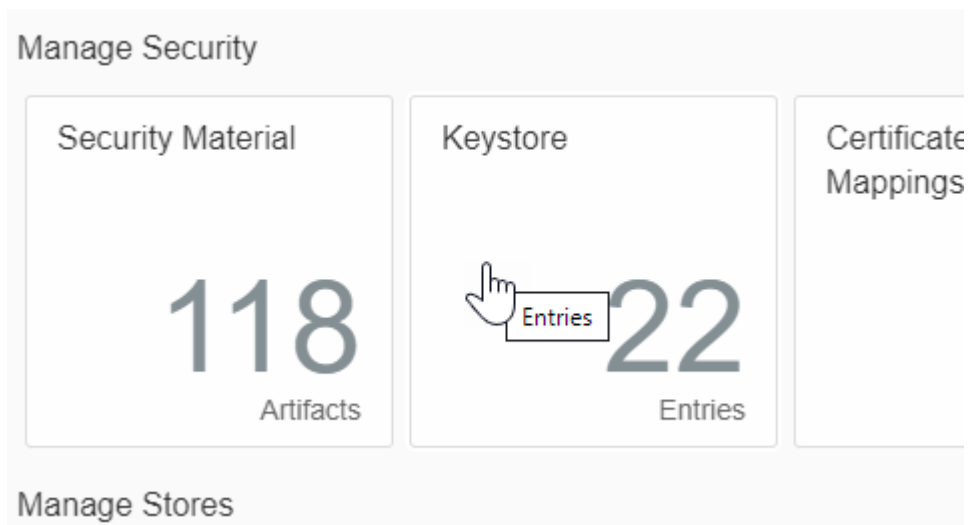
- We recommend that you use private key alias in form of **spainsiixxxx**, where **xxxx** is the company code.
- From version 3.0.0 onwards, the dynamic private key Alias is available, that is, you can choose to use an alias in form of **spainsiprivatekey\_xxxxx**, where **spainsiprivatekey** will be 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.

## 2.4 Add Public Certificates of Relevant Tax Agency

To establish an SSL connection to the tax agency server, the SAP Cloud 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 Integration tenant. Please refer to the relevant tax agencies' sites or the relevant governmental SII support teams to obtain relevant certificate chains.

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 URL emailed to you with your SAP Cloud Integration subscription details. The URL has the following format: **https://xxxxx.hana.ondemand.com/itspaces**.
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.

# 3 Configuration Steps in SAP Cloud Integration

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

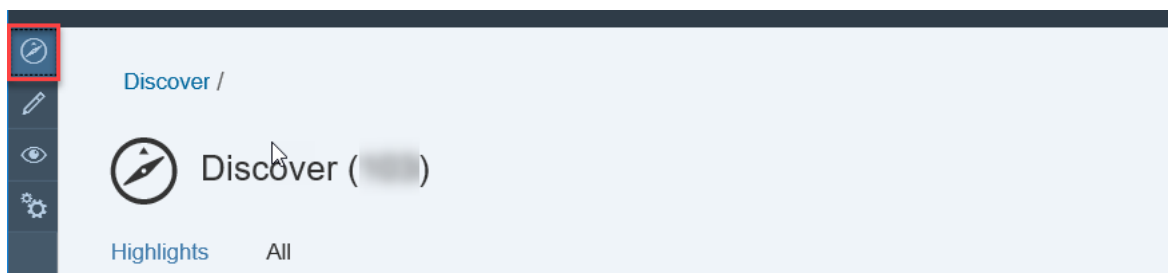
## 3.1 Copy Published Package

### Context

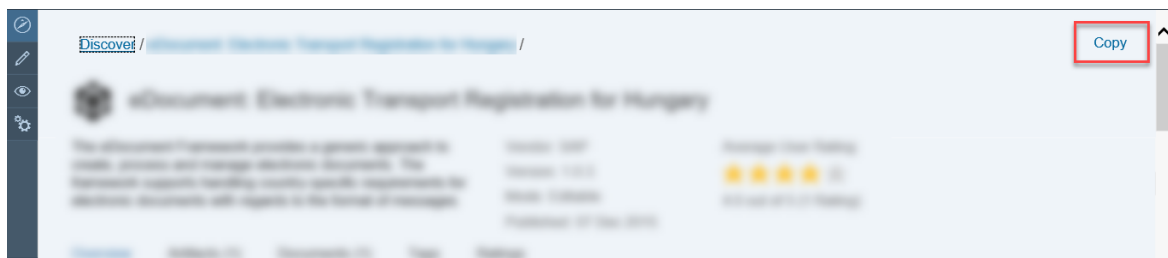
Copy all iFlows in the package *SAP Document and Reporting Compliance: Tax Register Books for Spain* to the target tenant as follows:

### Procedure


1. In the *Discover* section of your tenant, select the package *SAP Document and Reporting 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

## 3.2 Configure Integration Flow




### 3.2.1 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 \[page 7\]](#).

#### Procedure

1. Choose *Design* from the upper left corner of the page.
2. Click on the package that you copied from the original *SAP Document and Reporting 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.



Vendor: SAP Mode: Editable  
Version: 4.0.0

Overview Artifacts (2) Documents (4) Tags

Actions Filter Artifacts

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

### 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: ERP

Adapter Type: SOAP

**Connection**

Address: /SpainSIICommunicate - ES01

- 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: /SpainSIICommunicate - ES01

Authorization: User Role

User Role: ESBMessaging.send

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

**Connection**

Address: /SpainSIICommunicate - ES01

Authorization: Client Certificate

Subject DN	Issuer DN
<subject-dn>	<issuer-dn>
Select	

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

**Connection**

Address: /SpainSIICommunicate - ES01

Authorization: User Role

User Role: ESBMessaging.send

Select

**Conditions**

Body Size (in MB): 100

Attachments Size (in MB): 40

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 [Add Certificate for Client Certificate Authentication \[page 4\]](#).

### i Note

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

- In the *addNiftoKeyAlias* 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 [Add Certificate for Client Certificate Authentication \[page 4\]](#).  
The system will concatenate the *keyAliasSuffix* field with the NIF of your company automatically.  
By default, the *addNiftoKeyAlias* 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 [Add Certificate for Client Certificate Authentication \[page 4\]](#).

The screenshot shows a configuration interface with a 'More' button and several input fields. The fields are:

- Type: All Parameters (dropdown menu)
- addNiftoKeyAlias: NO
- keyAliasSuffix: spainiiprivatekey
- loggingEnabled: NO
- reportTo: Spain
- usageMode: TEST

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

Value	Acceptable aliases (not case sensitive)	Description
TEST	TEST, TESTING	Uses the test system of the tax agency
TEST-ELECTRONIC SEAL	TEST-SEAL, TESTING-SEAL, TEST-ESEAL, TESTING-ESEAL	Uses the Test system that accepts certificate of the electronic seal
PROD	PRODUCTION, PROD, PRODUCTIVE,	Uses the productive (that is, legally binding) system of the tax agency
PRODUCTION- ELECTRONIC SEAL	PROD-SEAL, PRODUCTION-SEAL, PRODUCTION-ESEAL, PROD-ESEAL, ESEAL, E-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 interface for a 'Sender' field. At the top, there is a 'Sender' label and a 'More' button. Below this, there is a 'Type' dropdown menu set to 'All Parameters'. The configuration fields are as follows:

- 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

### 3.2.2 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 \[page 8\]](#) 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.

# 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

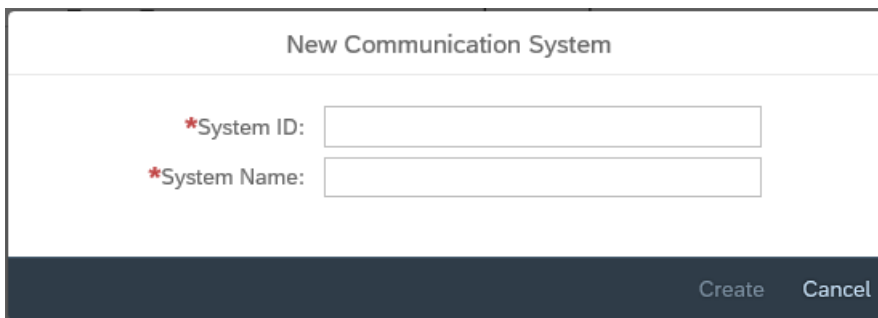
Configuration steps for SAP S/4HANA Cloud Communication System.

### 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 Integration tenant>, for example, if the tenant host name is *example-tmn.avt.eu1.hana.ondemand.com*, then System ID is *SCPI\_SII\_EXAMPLE*.

A screenshot of the 'New Communication System' pop-up window. The window has a white background and a dark blue header bar with the title 'New Communication System'. Below the header, there are two input fields. The first field is labeled '\*System ID:' and the second field is labeled '\*System Name:'. Both fields are empty. At the bottom right of the window, there are two buttons: 'Create' and '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 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. In the new pop-up window, select the appropriate authentication method to connect to your SAP Cloud Integration tenant.

**New Outbound User**

\*Authentication Method:  ▾

\*User Name:

\*Password:

User Name and Password

SSL Client Certificate

OAuth 1.0

OAuth 2.0

None

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.

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

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

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

- For authentication method *SSL Client Certificate*, select the default certificate or upload a third-party key pair. To upload a third-party key pair, choose the certificate type **Trusted Third-Party Key Pair**, browse for the key pair to upload it, enter a password and choose *Create*:

The screenshot shows the "New Outbound User" dialog box with the following configuration:
 

- \*Authentication Method: A dropdown menu with "SSL Client Certificate" selected.
- Certificate Type: A dropdown menu with "Trusted Third-Party Key Pair" selected.
- \*Third-Party Key Pair: A text input field followed by a "Browse..." button.
- \*Password: A password input field with several dots indicating a masked password.

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

8. Choose *Save*.

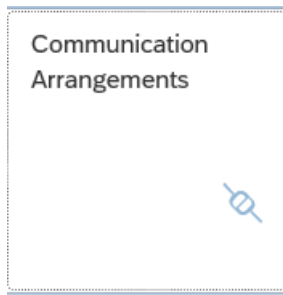
## 4.2 Configure Communication Arrangement

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 Integration package) and an [Arrangement Name](#). For arrangement name, it is recommended to choose a name like `SAP_COM_0225_<name of SAP Cloud Integration tenant>`, for example, `SAP_COM_0225_EXAMPLE` for tenant host name beginning with `example-trmn`.

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, there 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 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	<input type="text"/>

### 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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