



Integration Guide | PUBLIC  
2023-07-25

# Thailand Electronic Invoicing: Setting Up SAP Integration Suite (SAP ERP, SAP S/4HANA) - Cloud Foundry environment

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## 2 Introduction

You use SAP Integration Suite to establish the communication with your service provider and transfer to them the electronic documents in XML format you have created using the SAP Document and Reporting Compliance solution. This document lists the required setup steps you must perform in your SAP S/4HANA or SAP ERP system 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 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 **Set Up Your Tenants** 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 or SAP ERP system 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 documentation for SAP S/4HANA or SAP ERP and to the relevant tax authority information, respectively.

## 3 Prerequisites

[Register with a Service Provider \[page 5\]](#)

Register with a service provider to use their APIs to communicate with the Revenue Department (RD) of Thailand.

[Configure the Creation of Electronic Documents in XML Format \[page 5\]](#)

Ensure that you have configured the creation of electronic documents in XML format in your SAP S/4HANA or SAP ERP system.

[Set Up Your Tenants \[page 6\]](#)

### 3.1 Register with a Service Provider

Register with a service provider to use their APIs to communicate with the Revenue Department (RD) of Thailand.

**Parent topic:** [Prerequisites \[page 5\]](#)

#### Related Information

[Configure the Creation of Electronic Documents in XML Format \[page 5\]](#)

[Set Up Your Tenants \[page 6\]](#)

### 3.2 Configure the Creation of Electronic Documents in XML Format

Ensure that you have configured the creation of electronic documents in XML format in your SAP S/4HANA or SAP ERP system.

#### Documentation

If you use SAP S/4HANA, to find documentation about the required configuration steps and business processes, follow the steps below:

1. Go to SAP Help Portal at <https://help.sap.com>.
2. Search with the keyword **SAP S/4HANA**.
3. From the suggested products, select **SAP S/4HANA**.
4. At the top of the browser window, select your product version.
5. In the *Product Assistance* section, select a language.
6. From the navigation pane on the left, select **Local Versions** > *Asia-Pacific* > *Thailand* > *Cross-Application Functions* > *Document and Reporting Compliance* > *Electronic Documents*.

If you use **SAP ERP**, to find documentation about the required configuration steps and business processes, follow the steps below:

1. Go to SAP Help Portal at <https://help.sap.com>.
2. Search with the keyword **SAP ERP**.
3. From the suggested products, select **SAP ERP**.
4. At the top of the browser window, select your Enhancement Package version.
5. In the *Application Help* section, select your support package version.
6. From the navigation pane on the left, select **Local Versions** > *Asia-Pacific* > *Thailand* > *Cross-Application Functions* > *Document and Reporting Compliance* > *Electronic Documents*.

Parent topic: [Prerequisites \[page 5\]](#)

## Related Information

[Register with a Service Provider \[page 5\]](#)

[Set Up Your Tenants \[page 6\]](#)

## 3.3 Set Up Your Tenants

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 Cloud Integration in Cloud Foundry Environment](#).
- If you have subscribed to Integration Suite, perform all the initial setup steps described in [Initial Setup](#).

### i Note

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

### i Note

Your service provider might renew their SSL certificate every year. If they do so, then you must deploy a new SSL certificate on your tenant every year.

**Parent topic:** [Prerequisites \[page 5\]](#)

## **Related Information**

[Register with a Service Provider \[page 5\]](#)

[Configure the Creation of Electronic Documents in XML Format \[page 5\]](#)

# 4 Configuration Steps in SAP Integration Suite

Required steps in SAP Integration Suite.

[Deploy Security Credentials \[page 8\]](#)

When attempting to communicate with your service provider, you go through an authentication step in which your service provider asks for some security credentials. You must configure these security credentials in your SAP Integration Suite tenant.

[Copy Published Package \[page 10\]](#)

[Deploy Integration Flows and Value Mappings \[page 11\]](#)

Required steps for configuring the integration flows and value mappings in this integration package.

## 4.1 Deploy Security Credentials

When attempting to communicate with your service provider, you go through an authentication step in which your service provider asks for some security credentials. You must configure these security credentials in your SAP Integration Suite tenant.

### Required Security Credentials

The required security credentials are as follows:

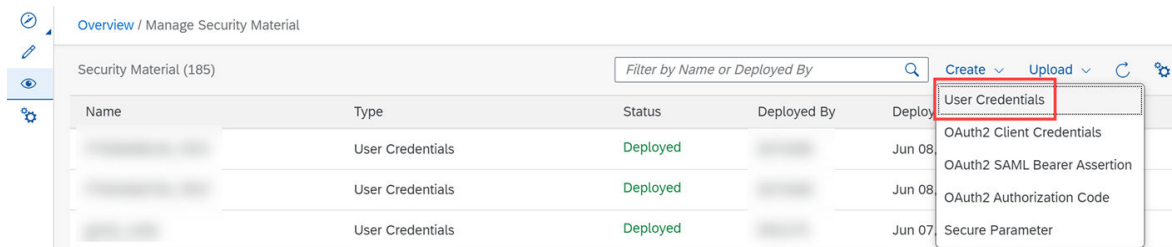
Name	Description
<code>edoc_th_stream_auth_&lt;tax id&gt;</code>	<p>This credential is an authentication token provided by your service provider. It's used in calling all service provider APIs.</p> <p><code>&lt;tax id&gt;</code> is the combination of your 13-digit VAT registration number and 5-digit branch code, as follows:</p> <p><code>&lt;13-digit VAT registration number&gt;&lt;5-digit branch code&gt;</code></p>
<code>edoc_th_stream_apikey_&lt;tax id&gt;</code>	<p>This credential is an API key issued by your service provider. It's used in calling all service provider APIs.</p>



## Procedure

To configure the above credentials, follow the steps below:

1. Log into your SAP Integration Suite tenant.
2. Go to *Monitor* (Operations view) and open the *Security Material* app.
3. Choose *Create* on the top right corner of the browser window. Select *User Credentials*.



4. Make the following settings:
  - **Name:** Enter `edoc_th_stream_auth_<tax id>`. Remember to replace `<tax id>` with your own value.
  - **User:** Enter the value of the credential.
  - **Password:** Enter the password.
  - **Repeat Password:** Repeat the password.

### Create User Credentials

Name: \*

Description:

Type: \*

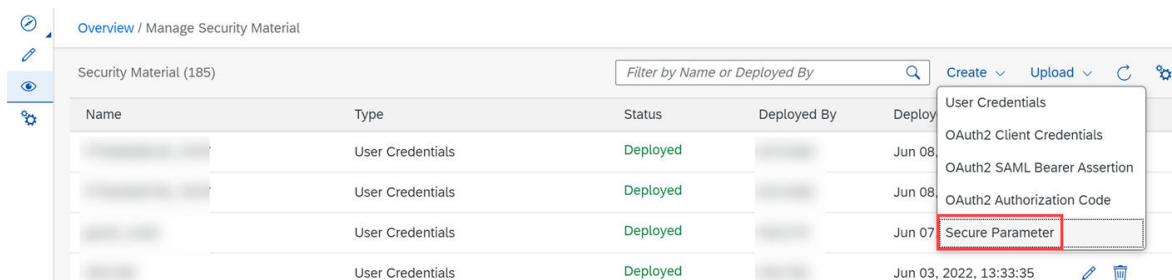
User: \*

Password:

Repeat Password:

[Deploy](#) [Cancel](#)

5. Choose *Deploy*. Go back to the initial screen of the *Security Material* app.
6. Choose *Create* on the top right corner of the browser window. Select *Secure Parameter*.



7. Make the following settings:

- *Name*: Enter **edoc\_th\_stream\_apikey\_<tax id>**. Remember to replace <tax id> with your own value.
- *Secure Parameter*: Enter the value of the credential.
- *Repeat Secure Parameter*: Repeat the value of the credential.

### Create Secure Parameter

---

Name: \*

Description:

Secure Parameter: \*

Repeat Secure Parameter: \*

[Deploy](#) [Cancel](#)

8. Choose *Deploy*.

**Parent topic:** [Configuration Steps in SAP Integration Suite \[page 8\]](#)

## Related Information

[Copy Published Package \[page 10\]](#)

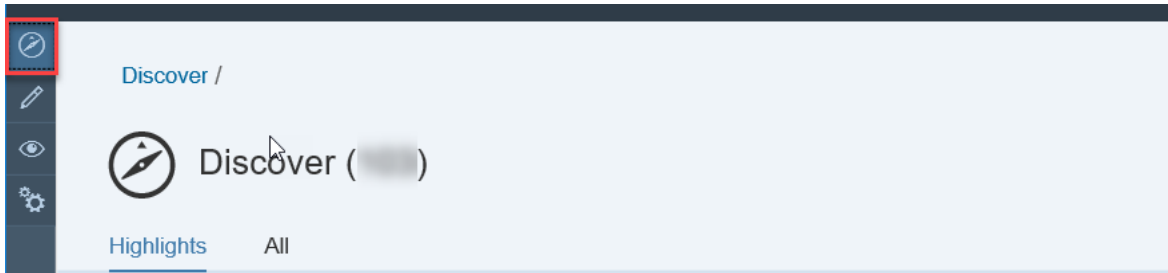
[Deploy Integration Flows and Value Mappings \[page 11\]](#)

## 4.2 Copy Published Package

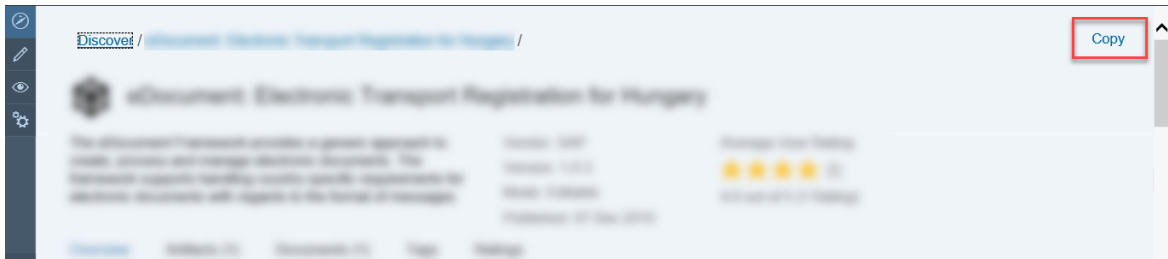
### Context

### Procedure

1. In the *Discover* section of your tenant, select the package *SAP Document and Reporting Compliance: Electronic Invoicing for Thailand*.



2. Select the package and choose *Copy*.



**Task overview:** [Configuration Steps in SAP Integration Suite \[page 8\]](#)

## Related Information

[Deploy Security Credentials \[page 8\]](#)

[Deploy Integration Flows and Value Mappings \[page 11\]](#)

## 4.3 Deploy Integration Flows and Value Mappings

Required steps for configuring the integration flows and value mappings in this integration package.

### Context

The available integration flows and value mappings are as follows:

Artifact Type	Artifact Name	Functions
Integration Flow	Thailand Send Document	Sends electronic documents to your service provider, who then forwards them to the RD.




Artifact Type	Artifact Name	Functions
Integration Flow	Thailand Get Status	Gets processing statuses of electronic documents at the RD side from your service provider.
Value Mapping	Thailand Document Type Mapping	Maps document types used in your SAP system to message codes defined by your service provider.

### i Note

If your service provider is Stream, you don't have to configure the *Thailand Document Type Mapping* value mapping by yourself. It's pre-configured by SAP.

## Procedure

1. Open the integration package that you copied.
2. Select the *Artifacts* tab.
3. Select an integration flow or value mapping. Choose the *Actions* icon and then *Configure*.

<input type="checkbox"/> Name	Type	Version	Actions
<input type="checkbox"/> <b>Thailand Document Type Mapping</b> Created	Value Mapping	Draft	 >
<input type="checkbox"/> <b>Thailand Get Status</b> Created	Integration Flow	Draft	 >
<input type="checkbox"/> <b>Thailand Send Document</b> Created	Integration Flow	Draft	 >

4. Make the required settings.

### i Note

If your service provider is Stream, you don't have to configure the *Thailand Document Type Mapping* value mapping by yourself. It's pre-configured by SAP.

5. Choose *Deploy*.
6. Configure the other integration flows that you want to use.

### [Parameter Information \[page 13\]](#)

Learn how you should configure the parameters of each integration flow.

**Task overview:** [Configuration Steps in SAP Integration Suite \[page 8\]](#)

## Related Information

[Deploy Security Credentials \[page 8\]](#)

[Copy Published Package \[page 10\]](#)

### 4.3.1 Parameter Information

Learn how you should configure the parameters of each integration flow.

The following table explains the parameters for each integration flow:

Integration Flow	Parameter	Explanation
<i>Thailand Send Document</i>	<i>Service URL (More tab → All Parameters type)</i>	This parameter refers to the URL of a specific service from your service provider.
<i>Thailand Get Status</i>	<i>Enable Attachments (More tab → All Parameters type)</i>	This parameter enables or disables the attachments function for message processing logs. To enable it, set this parameter to <b>X</b> . To disable it, set this parameter to blank.

→ Recommendation

Since the attachments function is very resource intensive, we suggest that you disable it if it's not very necessary.

Integration Flow	Parameter	Explanation
<i>Thailand Send Document</i>	<i>Product Code (More tab → All Parameters type)</i>	<div data-bbox="1007 344 1394 521" style="background-color: #f0f0f0; padding: 5px;"> <p><b>i Note</b></p> <p>This parameter is relevant only if your service provider is <b>TaxOne Stream</b>.</p> </div> <p>Enter the product code that you get from your service provider. The product code is then displayed in the ID field of the ExchangedDocument XML tag.</p> <p>If you leave this parameter empty, the system uses the company code (value of the ID field under SupplyChainTradeTransaction → ApplicableHeaderTradeAgreement → SellerTradeParty) as the product code. The company code is then displayed in the ID field of the ExchangedDocument XML tag. However, the company code may not be the same as the product code. You'll receive an error later on if the product code isn't correct.</p>

Parent topic: [Deploy Integration Flows and Value Mappings \[page 11\]](#)

# 5 Configuration Steps in SAP S/4HANA or SAP ERP

Required steps on your SAP S/4HANA or SAP ERP system.

[Create Proxy Configurations in SOA Manager \[page 15\]](#)

Configure the required proxies in SOA Manager in your SAP S/4HANA or SAP ERP system.

## 5.1 Create Proxy Configurations in SOA Manager

Configure the required proxies in SOA Manager in your SAP S/4HANA or SAP ERP system.

### Context

You connect the required proxies to your SAP Integration Suite tenant via logical ports. In a test SAP S/4HANA or SAP ERP system, you configure the logical ports to connect to your test SAP Integration Suite tenant. In a productive SAP S/4HANA or SAP ERP system, you configure the logical ports to connect to your productive SAP Integration Suite tenant.

#### i Note

Depending on your product version, the look and feel of the screens in your system may differ from the screenshots in this document.

### Procedure

1. Call up transaction SOAMANAGER. Choose [Web Service Configuration](#).

Service Administration    Technical Administration    Logs and Traces    Management Connections    Services Registry    Monitoring

- Identifiable Business Context**  
Display and maintain Identifiable Business Contexts (IBCs)
- Identifiable Business Context Reference**  
Display and maintain Identifiable Business Contexts references (IBC reference)
- Design Time Cache**  
Display central design time cache
- Web Service Configuration**  
Configure service definitions, consumer proxies and service groups
- Simplified Web Service Configuration**  
Configure service definitions for Web service consumers with limited capabilities
- Logon Data Management**  
Define logon data used by business scenario configuration
- Pending Tasks**  
Process pending tasks generated by business scenario configuration
- Local Integration Scenario Configuration**  
Configure multiple service definitions and service groups supporting change management
- Logial Determination of Receiver using Service Groups**  
Define rules for determining receiver IBC reference during service group runtime
- Logical Determination of Receiver, Sender and Authentication using Consumer Factories**  
Define rules for determining receiver IBC, sender IBC and authentication method during consumer factory runtime
- Web Service Isolation**  
Tool to isolate service definitions and consumer proxies

2. Search for the proxies for electronic documents for Thailand with the search criterion **object name containing EDOCTH\***.

Design Time Object Search    Configuration Search

Search criteria

Object Type is All

**Object Name contains EDOCTH\***

Maximum Number of Results: 100    Saved Search: [ ]

Search    Clear values    Reset search criteria

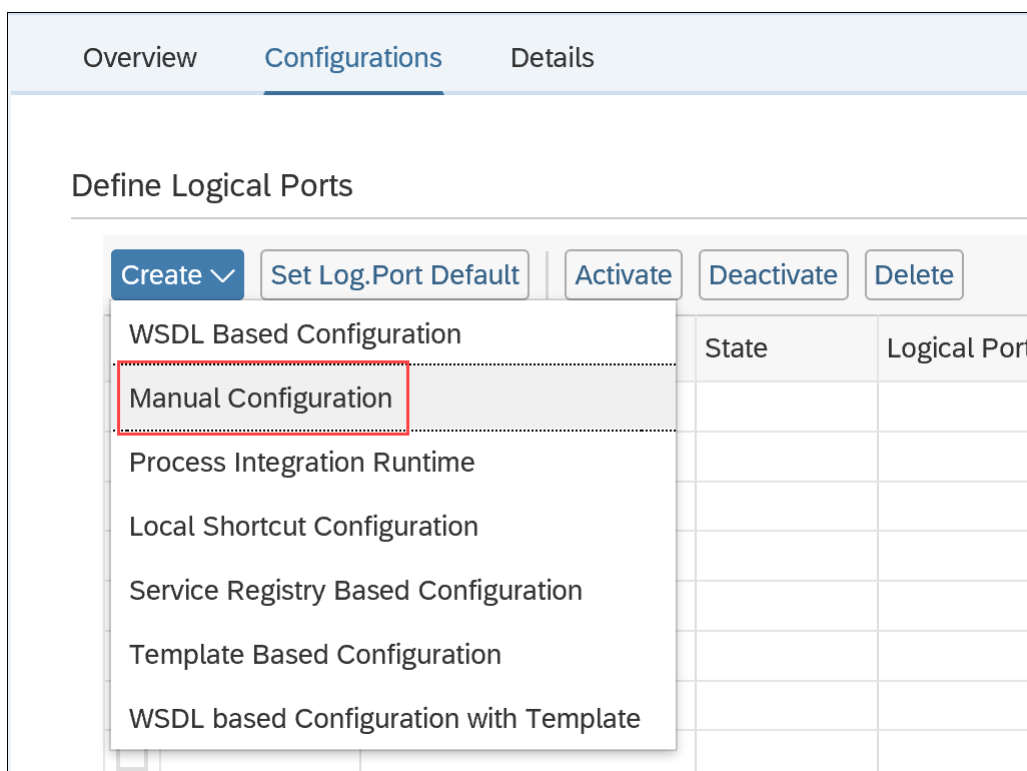
The available proxies are as follows:

Proxy Name	Function	Endpoint Path
eDocTHSendTaxInvoicePort	Sends invoices to your service provider, who then forwards them to the Revenue Department (RD) of Thailand.	/cxf/th/sendinvoice
eDocTHSendDebitCreditNotePort	Sends credit notes and debit notes to your service provider, who then forwards them to the RD.	/cxf/th/sendinvoice
eDocTHSendReceiptPort	Sends receipts to your service provider, who then forwards them to the RD.	/cxf/th/sendinvoice

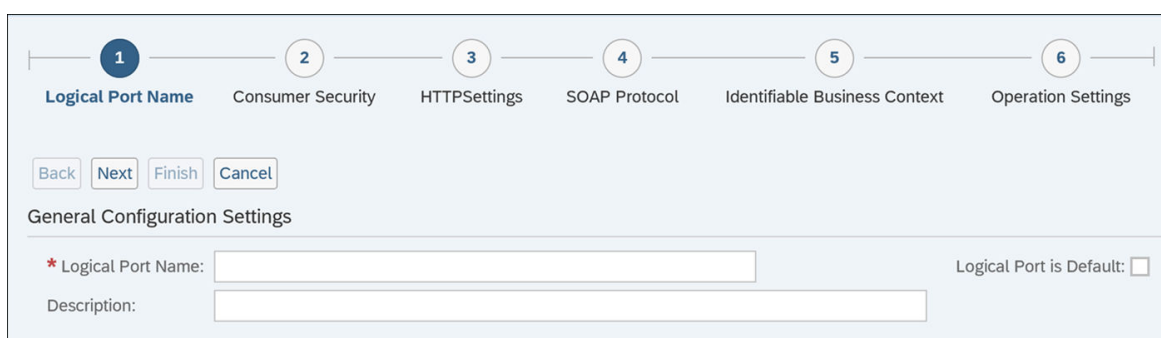


Proxy Name	Function	Endpoint Path
eDocTHGetStatus	Gets processing statuses of documents at the RD side from your service provider.	/cxf/th/getstatus

- From the search results, select a proxy and choose **Create** > **Manual Configuration**.



- Enter a logical port name and description. Choose **Next**.



- On the **Consumer Security** page, select the **User ID / Password** authentication method. Enter the value of your `clientid` in the **User Name** field, and the value of your `clientsecret` in the **Password** field. Then choose **Next**.

You create these values for your service instance in SAP Integration Suite. For more information, see [Creating Service Instances](#).

6. On the *HTTP Settings* page, select the *URL components* radio button and make the following settings:

Setting	Remark
<i>Protocol</i>	Select <i>HTTPS</i> .
<i>Host</i>	<p>Enter the host name of the integration flow that you want to communicate with. You can find the host name on your SAP Integration Suite tenant, as follows:</p> <ol style="list-style-type: none"> <li>From the menu on the left, choose <i>Monitor</i>.</li> <li>Select <i>Manage Integration Content</i> (All).</li> <li>Search for the integration flow.</li> <li>Find the host name from the <i>Endpoints</i> tab.</li> </ol> <p>The composition of an endpoint URL is <b>https://&lt;host name&gt;/&lt;path&gt;</b>.</p>
<i>Port</i>	Enter <b>443</b> , which is the standard port for the HTTPS protocol.
<i>Path</i>	Find the path in step 2.
<i>Proxy</i>	Enter the information about your company's network proxy.

1 Logical Port Name    2 Consumer Security    **3 HTTPSettings**    4 SOAP Protocol    5 Identifiable Business Context    6 Operation Settings

Back   Next   Finish   Cancel

URL Access Path

Complete URL     URL components

\* Protocol:    HTTPS ▾

\* Host:   

Port:    443

\* Path:   

Logon Language:    Language of User Context ▾

Proxy

Name of Proxy Host:   

Port Number of Proxy Host:   

User Name for Proxy Access:   

Password of Proxy User:   

Choose *Next*.

- On the *SOAP Protocol* page, set the message ID protocol to *Suppress ID Transfer*. As for the other settings, use the defaults. Choose *Finish*.

1 Logical Port Name    2 Consumer Security    3 HTTPSettings    **4 SOAP Protocol**    5 Identifiable Business Context    6 Operation Settings

Back   Next   Finish   Cancel

Message ID (Synchronous)

Message ID Protocol:    Suppress ID Transfer ▾

Metering of Service Calls

Data transfer scope:    Enhanced Data Transfer ▾

Transfer protocol:    Transfer via SOAP header ▾

Message Attachment Handling

Process Attachments:    No ▾

No settings are required on the *Identifiable Business Context* and *Operation Settings* pages.

- Repeat steps 3 to 7 for the other proxies.

## Next Steps

To complete the communication settings, you need to carry out the following Customizing activities related to SOA services in SAP S/4HANA or SAP ERP:

- [Define SOA Services for Communication](#) (ED0S0ASERV view)  
Create SOA services and assign the logical ports that you have defined to them.
- [Assign SOA Services to eDocument Interfaces](#) (ED0INTV view)

**Task overview:** [Configuration Steps in SAP S/4HANA or SAP ERP \[page 15\]](#)

## 6 Test the Integration

Test the communication between your back-end SAP system, SAP Integration Suite, service provider, and the Revenue Department (RD) using your test tenants.

The [Configure the Creation of Electronic Documents in XML Format \[page 5\]](#) topic of this guide describes how to find the documentation about the required configurations and business processes. To test the integration, perform the procedures described in the following topics in this documentation:

- [Creating and Sending an Electronic Invoice](#)
- [Creating and Sending an Electronic Payment Receipt](#)

### i Note



Although both documents appear part of the SAP S/4HANA documentation, they apply to both SAP S/4HANA and SAP ERP.

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