



Integration Guide | PUBLIC
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Portugal Transport Registration: Setting Up SAP Cloud Integration (SAP S/4HANA) - Neo environment

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1 Introduction

You use SAP Cloud Integration to establish the communication with external systems with whom you want to exchange electronic documents created with SAP Document and Reporting Compliance. This document lists the required setup steps you perform in the SAP S/4HANA system and the SAP Cloud Integration tenant so that the integration between the systems works.

The setup steps are typically done by an SAP Cloud Integration consulting team, which is responsible for configuring the SAP back-end systems 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 back-end systems 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 SAP back-end systems documentation and to the relevant tax authority information, respectively.

2 Prerequisites

Before you start with the activities described in this document, ensure that the following prerequisites are met.

1. Document and Reporting Compliance: All relevant notes are installed in the test and/or productive systems.
2. SAP Cloud Integration test/productive tenants are live.
3. You have configured the connection from SAP back-end system to SAP Cloud Integration.

2.1 Implementation for Electronic Document Processing Framework

You have implemented and configured the Electronic Document Processing Framework in your test and productive systems. If you did not install the latest support package for your system, refer to the SAP Note [2134248](#) for the implementation guide of SAP Notes.

Application Help for Electronic Document Processing

For more information about features and country/region availability of each solution, see the application help documentation:

- SAP S/4HANA: [Product Assistance](#) > [English](#) > [Local Version](#) > [<Region>](#) > [<Country/Region>](#) > [Cross-Application Functions](#) > [Document and Reporting Compliance](#).

3 Connectivity Steps



3.1 Setup of Secure Connection

You establish a trustworthy SSL connection to set up a connection between the SAP back-end systems and the SAP Cloud Integration. For more information, see [Connecting a Customer System to Cloud Integration](#).

Inbound HTTP connections are not required for Portugal. Outbound HTTP connections are required, and are supported with specific, public certificates.

You use SAP ERP Trust Manager (transaction `STRUST`) to manage the certificates required for a trustworthy SSL connection. The certificates include public certificates to support outbound connections, as well as trusted certificate authority (CA) certificates to support integration flow authentication.

Refer to the system documentation for more information regarding the certificate deployment to SAP back-end systems. In case of issues, refer to the following SAP notes:

- [2368112](#)  Outgoing HTTPS connection does not work in AS ABAP
- [510007](#)  Setting up SSL on Application Server ABAP

For more information, refer to [Operating and Monitoring Cloud Integration](#)

i Note

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

Client Certificate

If you are using a client certificate, this must be signed by one of the root certificates supported by the load balancer. A self-signed certificate is not suitable. For more information see [Load Balancer Root Certificates Supported by SAP](#).

3.1.1 Set Up SAP Cloud Integration Tenants

Ensure that your SAP Cloud Integration test and production tenants are live, and users in the tenants have the rights to copy the integration package and to configure and deploy the integration flows.

When your tenants are provisioned, you receive an email with a Tenant Management (TMN) URL. You need this URL when configuring on your SAP S/4HANA or SAP S/4HANA Cloud tenant the communication with the SAP Cloud Integration tenant.

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

If you are a first-time user, you must first set up your users (members) and their authorizations in the SAP BTP cockpit.

4 Configuration Steps in SAP Cloud Integration

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

4.1 General Information

The package **SAP Document and Reporting Compliance: Transport Registration for Portugal** contains the following integration flow:

Integration Flow for Document and Reporting Compliance for Portugal

Integration Flow Name in WebUI	Project Name/Artifact Name
Manage Transport Registration	com.sap.GS.Portugal.ManageTransportRegistration

4.2 Deploying Key Pairs

Context

You deploy the key pairs to the SAP Cloud Integration tenants. You need separated key pairs for testing and production environments.

Procedure

1. Open to the attachment of the SAP Note [3287374 \(Portugal Transport Registration: Certificates for Authentication\)](#) to get the necessary key pairs for authentication, which include `edocumentportugaltestdgita.p12` and `edocumentportugalproddgita.p12`.
2. Upload the private key in the *Keystore* app. Go to **Operations View** > **Keystore** > **Add** > **Key Pair**

You must upload the `edocumentportugaltestdgita.p12` and `edocumentportugalproddgita.p12` files to the keystore of the tenant. Create the alias for the key pair according to the following naming convention:

Value	Description
<code>edocumentportugaltestdgita</code>	Test environment
<code>edocumentportugalproddgita</code>	Production environment

4.3 Adding User Credentials

Context

To authenticate the request to the tax authority you need to add user credentials to the security materials.

Procedure

Go to [Operations View](#) > [Security Material](#) > [Add](#) > [User Credentials](#) and enter the User ID and password to connect to the tax authority with the following alias:

User Credentials

Value	Description
<code><tax_code>_edocportugalcredentials</code>	To connect to the tax authorities services in test environment.

i Note

Enter your tax code as a prefix for the credential.

Edit User Credentials

***Name:**

Description:

***Type:** ▼

***User:**

Password:

Repeat Password:

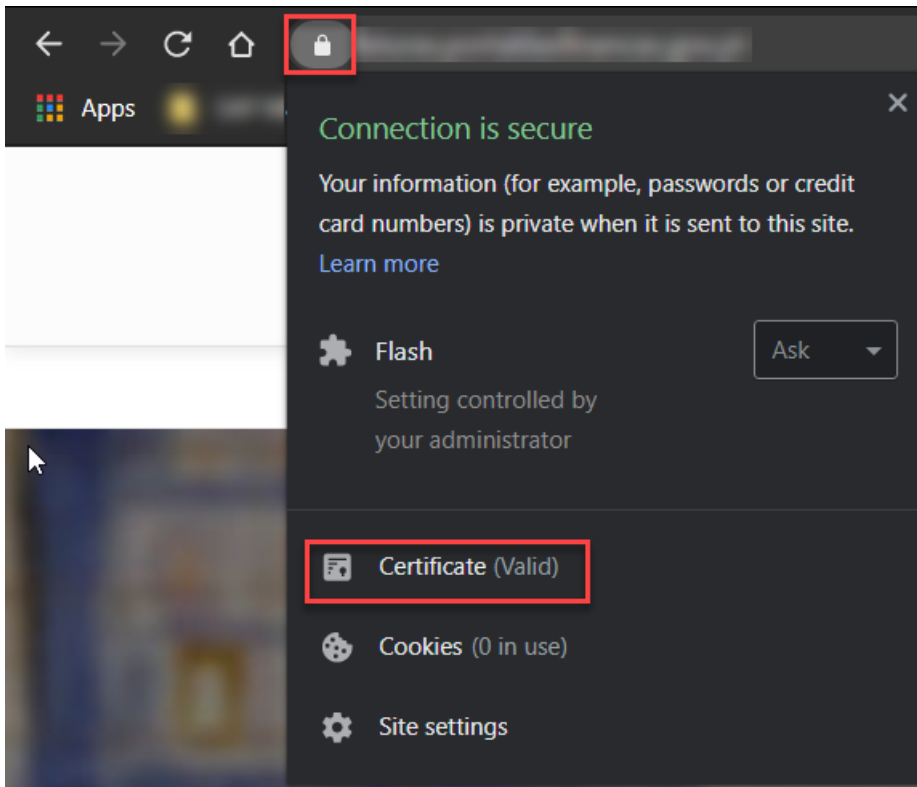
Deploy Cancel

4.4 Uploading the Root Certificate

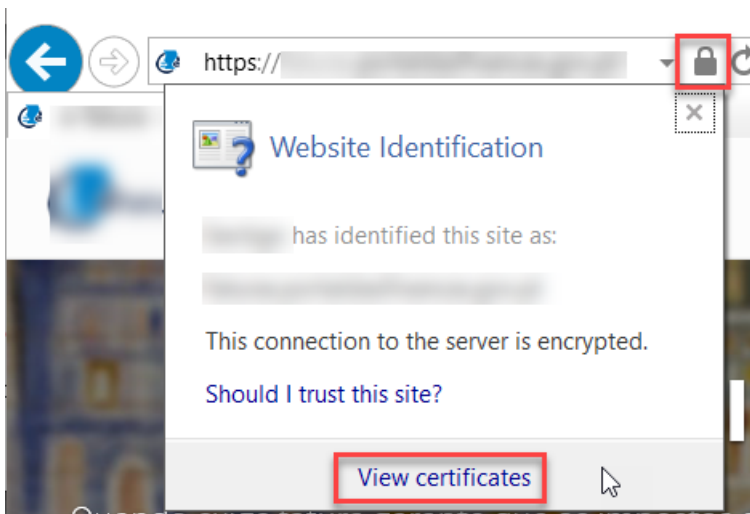
Provides a description on how to upload the root certificate to the keystore of your SAP Cloud Integration tenant.

Procedure

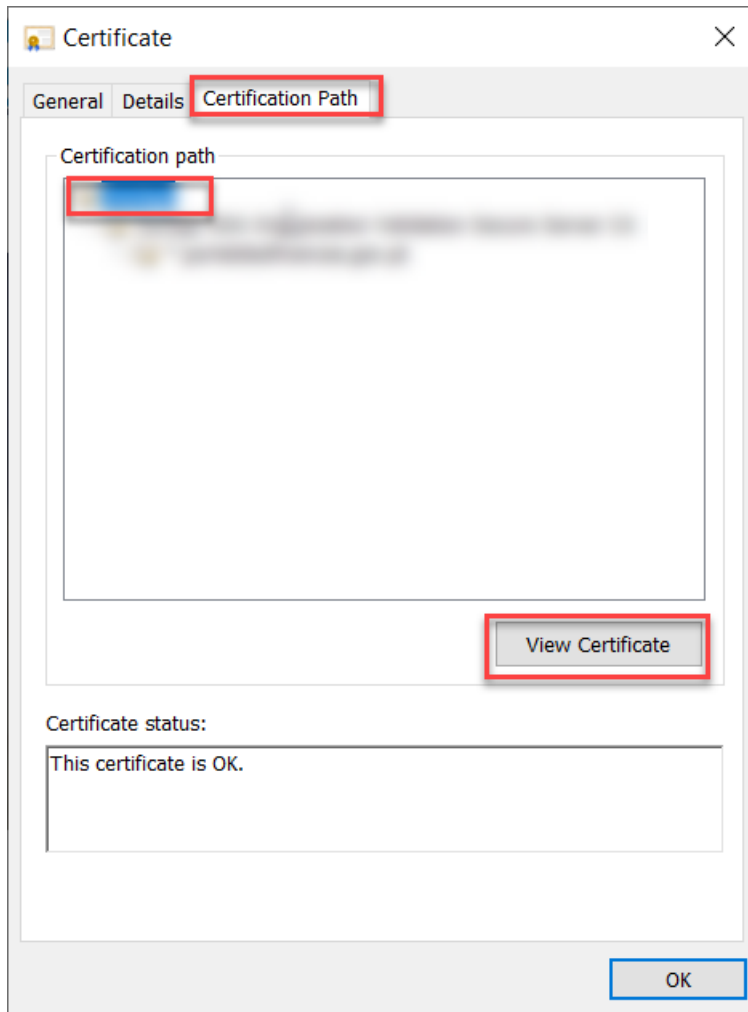
1. Go to the web site of the tax authorities (Portal das Finanças).
2. Choose the icon next to the URL and select *Certificate*:
 - In Chrome (recommended):



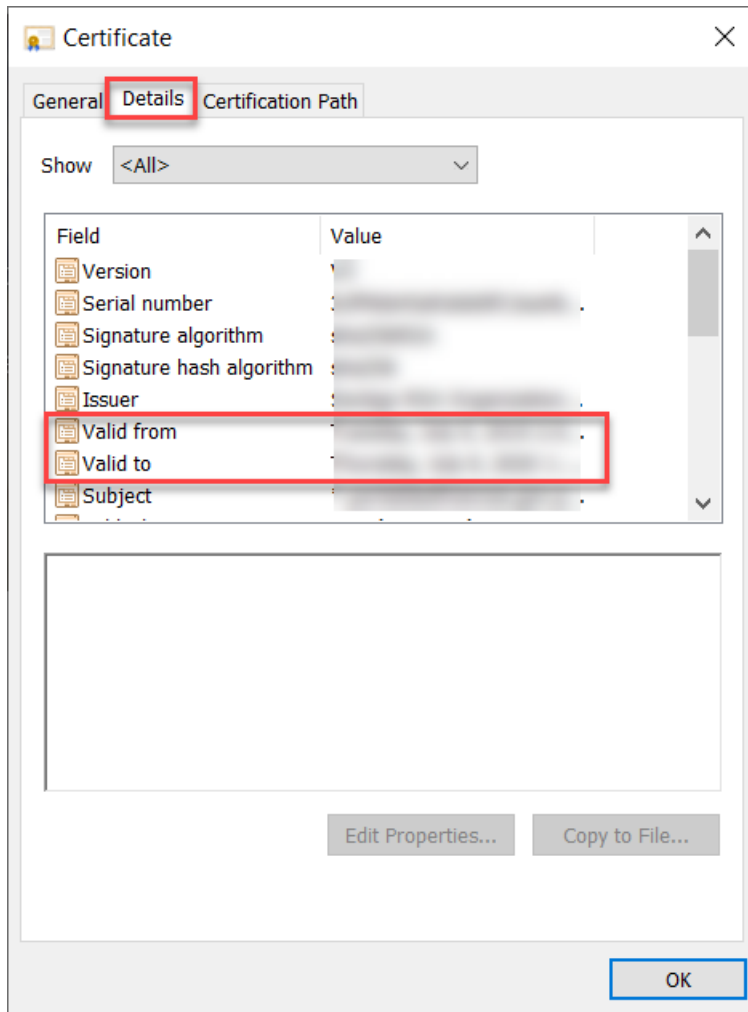
- In Internet Explorer:



3. Go to the *Certification Path* tab, choose the root certificate (first in the tree) and then select *View Certificate*:

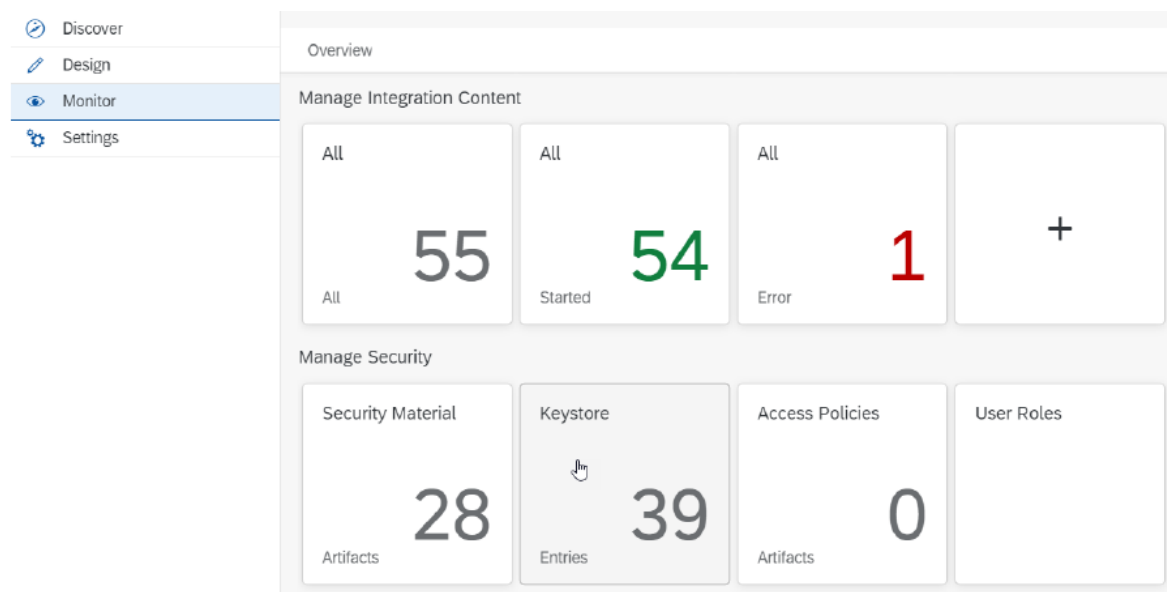


4. Go to the *Details* tab:

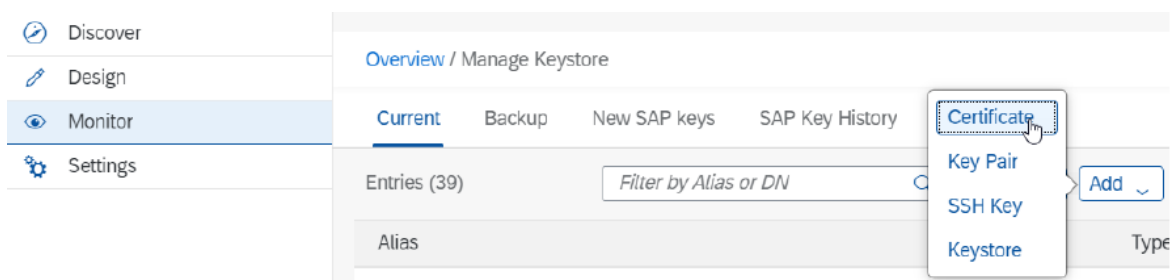


To ensure that you are downloading the correct certificate, check the values of *Valid from* and *Valid to*.

5. If everything is up-to-date, choose *Copy to File* and save it to your local directory.
6. Go to *Keystore* on your SAP Integration Suite tenant to upload the saved root certificate:



7. Choose *Monitor*, select *Certificate* and then *Add*.



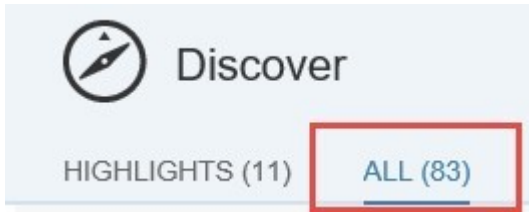
4.5 Copying Integration Flow

Context

Copy the integration flow in the package SAP Document and Reporting Compliance: Electronic Transport Registration 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/catalog).
2. Choose **Discover** > **All** > **.**



3. Search for **SAP Document and Reporting Compliance: Electronic Transport Registration for Portugal** .
4. Select the Package and choose *Copy*.

4.6 Configuring Integration Flow

Context

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

Procedure

1. There is one *Artifact* in the integration package SAP Document and Reporting Compliance: Transport Registration for Portugal.
2. Choose ► *Actions* ► *Configure* ▾ for the artifact you are configuring.
3. Choose ► *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 tax authority.
PROD	To use the productive (that is, legally binding) system of the tax authority.

Configure "Manage Transport Registration"

Sender More

Type:

Mode:

4. Choose **Configure > 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.
- Use the **User Role** parameter to configure the role based on which the inbound authorization is checked. Choose **Select** to get a list of all available roles. The role **ESBMessaging.send** is provided by default.

Configure "Manage Transport Registration"

SenderMore

Sender:

Adapter Type:

Connection

Address:

User Role:

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

i Note

Depending on the version of your tenant, after pressing these buttons, a warning messages can appear. You can ignore these messages by choosing **Close**. The first two warnings are related to the payload attachments; currently the invoice registration process does not support or require message attachments (for example, scanned copies of invoices) in any stage of processing and communication.

5 Configuration Steps in Back-End Systems

The following sections tell you the necessary configuration you do in SAP back-end systems to connect with SAP Cloud Integration.

5.1 Creating Logical Ports in SOAMANAGER

Required step for configuring the Integration Package for eDocument and SAP Cloud Integration.

Context

You configure proxies which are needed to connect to the SAP Cloud Integration tenant via logical ports. In test SAP back-end systems, the logical ports are configured to connect to the test tenant. In productive SAP back-end systems, the logical ports are configured to connect to the productive SAP Cloud Integration tenant.

i Note

Depending on your release, the look-and-feel of the screens in your system may differ from the screenshots displayed below.

Procedure

1. In your SAP back-end system, go to the **SOAMANAGER** transaction and search for [Web Service Configuration](#).

Service Administration | Technical Administration | Logs and Traces | Management Connections | Services

Identifiable Business Context
Define Identifiable Business Contexts (IBCs)

Identifiable Business Context Reference
Define Identifiable Business Context 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

Logical Determination of Receiver using ServiceGroups
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 reference and authentication method during consumer factory runtime

Web Service Isolation
Tool to isolate service definitions and consumer proxies

- Find the proxies for SAP Document and Reporting Compliance (Electronic Document) for Portugal with search term **CO_EDO_PT***.

Search criteria

Object Type is All

Object Name contains

Maximum Number of Results: 100

Search Clear values Reset search criteria

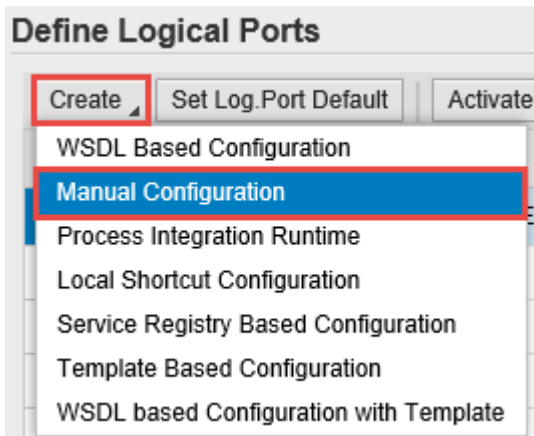
Enter the search term here

The following table lists the proxies and the logical port name, description and path for each proxy.

List of Proxies, Logical Port Names, and Paths

Proxy Name	Logical Port Name	Description	Path
CO_EDO_PT_MAN- AGE_TRREG_V1_0	EDO_PT_TRREG_TRANSM_ SERV_PORT	Portugal eDocument - Transport Registration Transmission Service	/cxflmanage_trans- port_registration

- In the *Result List*, select a proxy from the list above and create a logical port for each proxy. Choose **Create Manual Configuration**.



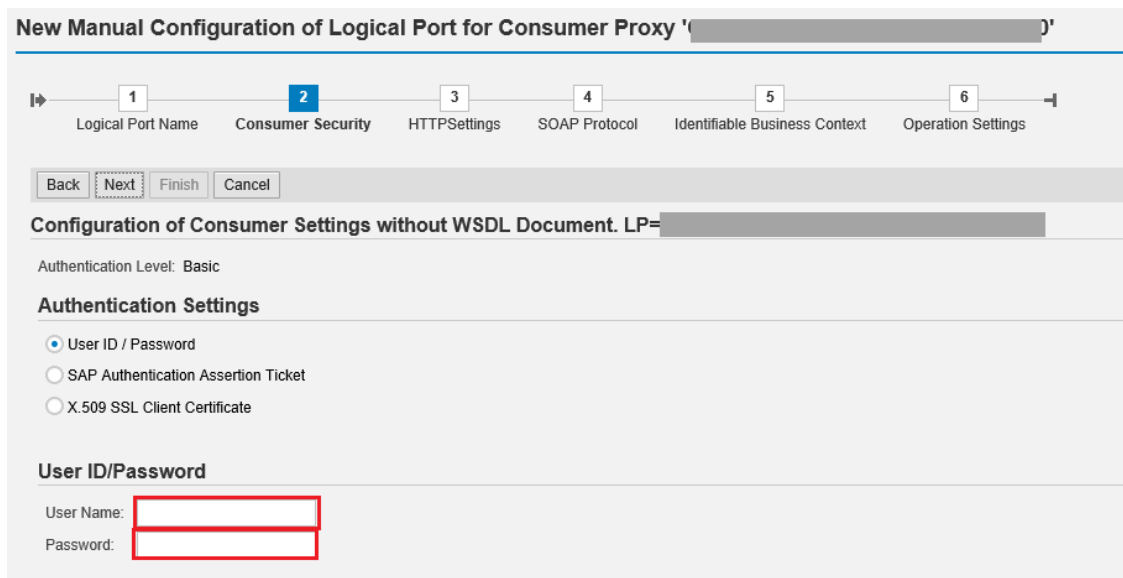
4. Enter the logical port name and a description.



5. The configuration you do in the *Consumer Security* tab in the *Configuration* screen depends on the security being used in the communication between the SAP back-end system and SAP Cloud Integration.
- If you use the basic authentication, select the *User ID / Password* and enter *User Name* and *Password*.
 - If you use certificate-based authentication, select *X.509 SSL Client Certification*. Ensure that the required certificates are available in the `STRUST` transaction.

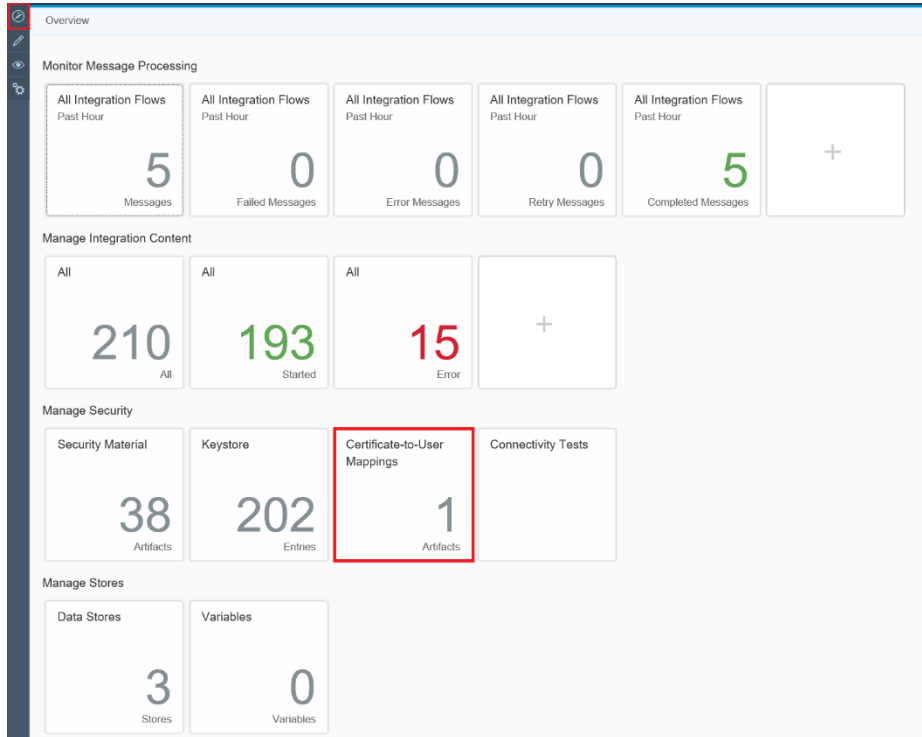
Note

If you do not see this option or cannot select it, check the SAP Notes [2368112](#) and [510007](#)

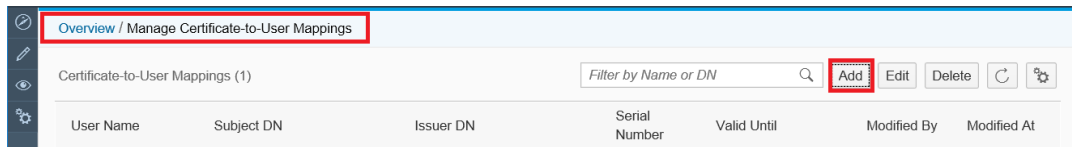


Additionally, you map the certificate to a user of your tenant with the `ESBMessaging.send` role. First, you export the certificate from the `STRUST` transaction. Save it locally and upload it to SAP Cloud Integration in the `Certificate-to-User Mappings`

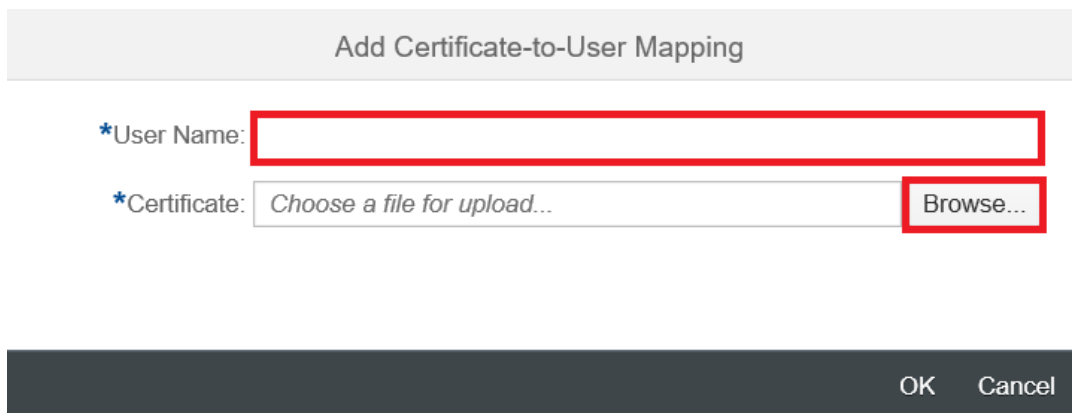
1. Export the SSL Client PSE of the `STRUST` transaction.
2. Go to SAP Cloud Integration under `Overview > Certificate-to-User Mappings`



3. Choose `Add`.



4. Enter a user name with `ESBMessaging.send` role, upload the SSL Client PSE of the `STRUST` transaction and choose `OK`.



6. On the `HTTP Settings` tab, make the following entries:

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

Back Next **Finish** Cancel

URL Access Path

URL **URL components**

* Protocol: **HTTPS** **Look Up the SAP Cloud Integration**

* Host: _____

Port: **443**

* Path: _____ **For each logical port, enter the path from the table above**

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: _____

Enter the proxy settings of your company's network

Transport Binding

Make Local Call: **No Call in Local System**

* Transport Binding Type: **SOAP 1.1**

Maximum Wait for WS Consumer: **0**

Optimized XML Transfer: **None**

Compress HTTP Message: **Inactive**

Compress Response: **True**

Port 443 is the standard port for the HTTPS protocol.

To find the Host, go to SAP Cloud Integration Web UI and under Managed Integration Content, go to **Monitor** **All**. Use the search to find your integration flow as in the screenshot below:

Overview / Manage Integration Content

Integration Content (489) Filter by Name or ID [Search] [Refresh] [Settings]

1 Go to Operations View

2 Enter the integration flow name as search term

Deployed On: Feb 11, 2021, 11:49:57
 Deployed By: _____
 ID: _____
 Version: 1.0.3
 Package: _____

3 Copy the host name from here (the part between https:// and /cxfl)

Endpoints Status Details Artifact Details Log Configuration

https://[host]/cxfl

Status Details

i Note

The entries for the proxy fields depend on your company's network settings. The proxy server is needed to enable the connection to the internet through the firewall.

7. On the *SOAP Protocol* tab, set *Message ID Protocol* to *Suppress ID Transfer*.

The screenshot shows the configuration wizard for SAP Cloud Integration, specifically the **SOAP Protocol** tab. The wizard consists of six steps: 1. Logical Port Name, 2. Consumer Security, 3. HTTPSettings, 4. SOAP Protocol (current step), 5. Identifiable Business Context, and 6. Operation Settings. The **Message ID (Synchronous)** section is expanded, showing the **Message ID Protocol** dropdown menu set to **Suppress ID Transfer**. Below this, the **Metering of Service Calls** section shows **Data transfer scope** set to **Enhanced Data Transfer** and **Transfer protocol** set to **Transfer via SOAP header**. The **Message Attachment Handling** section shows **Process Attachments** set to **No**. Navigation buttons (Back, Next, Finish, Cancel) are visible at the top.

8. No settings are required in the *Identifiable Business Context* and *Operation Settings* tabs. Just select **Next** **Finish**.

SAP Cloud Integration does not support WebService Pin for testing your configuration.

You can set up a HTTP connection in the **SM59** transaction. Maintain a host and a port of SAP Cloud Integration service and execute a connection test. In case of a successful connection, you receive an error with HTTP return code 500.



9. Remember to create logical port(s) for each proxy and to execute the following steps in the SAP back-end systems, see SAP Note [3282752](#) for more information.
 - Define the SOA service names and assign the logical ports to the combination of a SOA service name and a company code in **EDOSOASERV** view.
 - Assign the SOA service names you created before to an interface ID in **EDOINTV** view

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