

Configuration Guide

CUSTOMER

CSSZAPEP

Document Version: 1.0 – 2019-10-23

Human Experience Management solutions from SAP Integration with Czech Social Security Administration

Using Web Services with SAP Cloud Platform Integration



Typographic Conventions

Type Style	Description
<i>Example</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
Example	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE	Keys on the keyboard, for example, F2 or ENTER.

Document History

Version	Date	Change
1.0	2019-10-23	Initial version

Contents

1	Introduction	5
2	Prerequisites	6
2.1	Installation of 'APEP for SCPI' Solution	6
2.2	Set Up of Secure Connection	6
2.3	Set Up SAP Cloud Platform Integration Tenants	7
2.4	Czech Social Security Administration Public Key Certificate	7
2.5	Czech Social Security Administration SSL Certificate	7
2.6	Qualified System Certificate	7
2.7	Encryption Certificate for DZDPN Notification	8
3	Configuration Steps in SAP Cloud Platform Integration	9
3.1	General Information.....	9
3.2	Deploying Key Pairs and Certificates	9
3.2.1	Uploading of Czech Social Security Administration Public Key Certificate to Keystore	9
3.2.2	Uploading of Czech Social Security Administration SSL Certificate to Keystore	10
3.2.3	Uploading of Qualified System Certificate to Keystore.....	11
3.2.4	Uploading of Encryption Certificate for DZDPN Notification to Keystore	11
3.3	Copy Published Integration Package	12
3.4	Configure Integration Flows	13
3.4.1	Configuration of Data Request iFlow	13
3.4.2	Configuration of Dispose iFlow	14
3.4.3	Configuration of Poll iFlow	14
3.4.4	Configuration of Submit iFlow	14
4	Configuration Steps in SAP ERP or SAP SuccessFactors Employee Central Payroll	16
4.1	SOAMANAGER configuration.....	16
4.2	Basic Connection Test.....	20

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 Human Experience Management solutions from SAP for Czech Republic. This document lists the required setup steps you perform in the SAP ERP or SAP SuccessFactors Employee Central Payroll 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 back-end systems 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 back-end systems the access to such functionality is only partially implemented. Additionally, it may also happen that the Czech Social Security Administration servers do not provide all services that are described in this document. Please refer to the relevant SAP back-end systems documentation and to the relevant Czech Social Security Administration information, respectively.

For the sake of simplicity in this guide, we mention SAP back-end systems when something refers to both SAP ERP and SAP SuccessFactors Employee Central Payroll.

2 Prerequisites

2.1 Installation of 'APEP for SCPI' Solution

You installed and configured the "APEP for SCPI" solution in your test and productive SAP ERP or SAP SuccessFactors Employee Central Payroll systems. If you did not install the latest support package for your system, refer to the latest SAP Note with latest improvements of "APEP for SCPI" solution.

Note

Minimal SAP Notes which need to be in SAP ERP or SAP SuccessFactors Employee Central Payroll systems to be able to complete all configurations steps described in this guide are following:

2832073 - HRCZ - APEP for SCPI - November 2019 [1] - SPROXY

2836189 - HRCZ - APEP for SCPI - November 2019 [2] - Source code

Recommended SAP Notes are latest SAP Notes for 'APEP for SCPI' solution.

2.2 Set Up of Secure Connection

You establish a trustworthy SSL connection to set up a connection between the SAP back-end systems and the SAP Cloud Platform Integration.

Inbound HTTPS connections are not required for Czech Republic. Outbound HTTPS connections are required and are supported with specific public certificates.

You use the 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 iFlow 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 the "[Operations guide for SAP Cloud Platform Integration.](#)"

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.

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](#).

2.3 Set Up SAP Cloud Platform Integration Tenants

SAP Cloud Platform 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 (iFlows).

When your tenants are provisioned, you receive an email with the Tenant Management (TMN) URL. You need this URL for the configuration of the SAP back-end systems.

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 Cloud Platform cockpit.

2.4 Czech Social Security Administration Public Key Certificate

The actual Czech Social Security Administration public key certificate is published on CSSZ's web page at: *Služby pro vás → Předávání předepsaných tiskopisů (e-Podání) → Ke stažení → Šifrovací certifikát ČSSZ*

2.5 Czech Social Security Administration SSL Certificate

The actual Czech Social Security Administration SSL certificate for HTTPS communication is published on CSSZ's web page at: *Služby pro vás → Předávání předepsaných tiskopisů (e-Podání) → Ke stažení → SSL certifikáty VREP / APEP → Certifikát epodani.cssz.cz*.

Note

Certificate for t-epodani.cssz.cz is for use by software vendors (not for use on the customer's test system).

2.6 Qualified System Certificate

More information about the required type of certificate is published on CSSZ's web page at: *Služby pro vás → Předávání předepsaných tiskopisů (e-Podání) → Informace pro SW vývojáře → Elektronický podpis*.

i Note

The customer's certificate used by this solution is the qualified system certificate. Because the certified documents will be sent automatically, the qualified system certificate is the certificate which should be used in such a case.

The qualified system certificate must be registered at the Czech Social Security Administration. More information about this registration is published on CSSZ's web page at: *Služby pro vás → Předávání předepsaných tiskopisů (e-Podání) → Základní informace → Registrace na okresní správě sociálního zabezpečení k e - Podání za zaměstnavatele (zasílanému s uznávaným elektronickým podpisem prostřednictvím VREP/APEP).*

i Note

*Remind the client that only one qualified certificate is required to receive e-submission for multiple variable symbols and/or multiple e-submission services. More information is published at CSSZ's web page under *Služby pro vás → Tiskopisy → Tiskopisy určené pro pověřování jiných subjektů k eSlužbám ČSSZ.**

2.7 Encryption Certificate for DZDPN Notification

According to information published on CSSZ's web page at: *Služby pro vás → Předávání předepsaných tiskopisů (e-Podání) → Informace pro SW vývojáře → Definice jednotlivých druhů e - Podání → Speciální e - Podání DZDPN eNeschopenky → Komentovaný popis rozhraní pro zaměstnavatele pro získání dat z eNeschopenky is in chapter 3.2 APEP služba pro elektronická podání* must encrypt the certificate for "Data related to temporary sick leave for employer" notification (DZDPN) and fulfill following requirement:

- As an encryption certificate, it is possible to use a certificate that meets the minimum requirements of NÚKIB:<https://www.nukib.cz/en/uredni-deska/> from 28.11.2018.

i Note

The information above mentioned is the responsibility of the Czech Social Security Administration (CSSZ). SAP cannot be made liable for its correctness and accuracy.

3 Configuration Steps in SAP Cloud Platform Integration

3.1 General Information

The package Human Experience Management solutions from SAP Integration with CSSZ APEP for Czech Republic contains the following iFlows:

iFlow Name in WebUI	Project Name/Artifact Name
Data Request	com.sap.GS.HR.CZ.APEP.DataRequest
Dispose	com.sap.GS.HR.CZ.APEP.Dispose
Poll	com.sap.GS.HR.CZ.APEP.Poll
Submit	com.sap.GS.HR.CZ.APEP.Submit

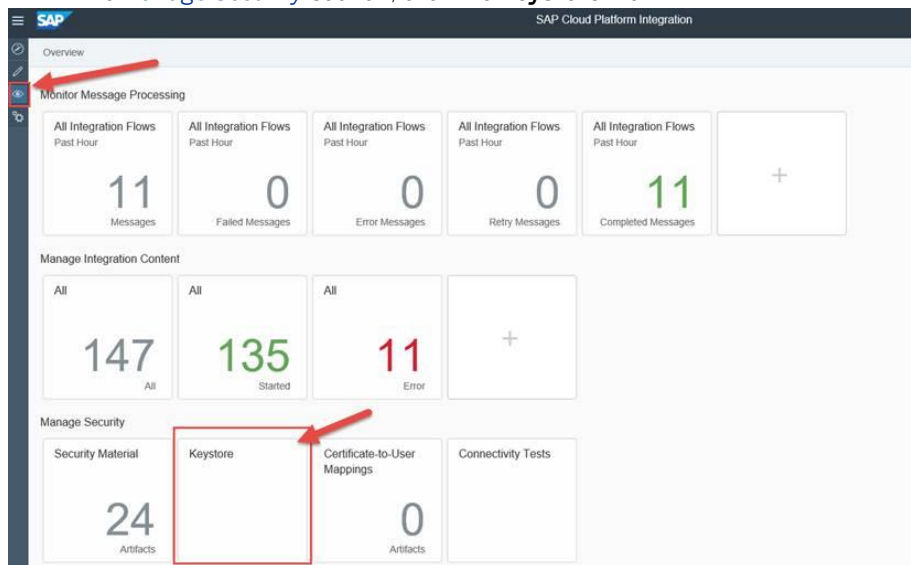
3.2 Deploying Key Pairs and Certificates

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

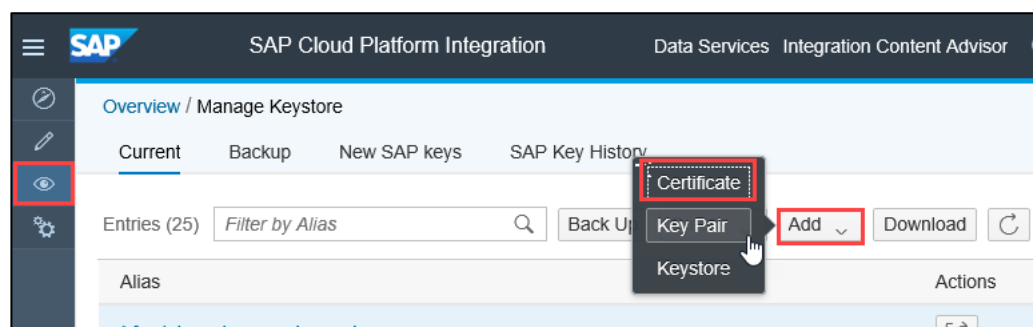
3.2.1 Uploading of Czech Social Security Administration Public Key Certificate to Keystore

1. In the CPI, open the [Overview](#) section.

2. In the *Manage Security* section, click the **Keystore** tile.



3. Click the *Add* button and select **Certificate**.



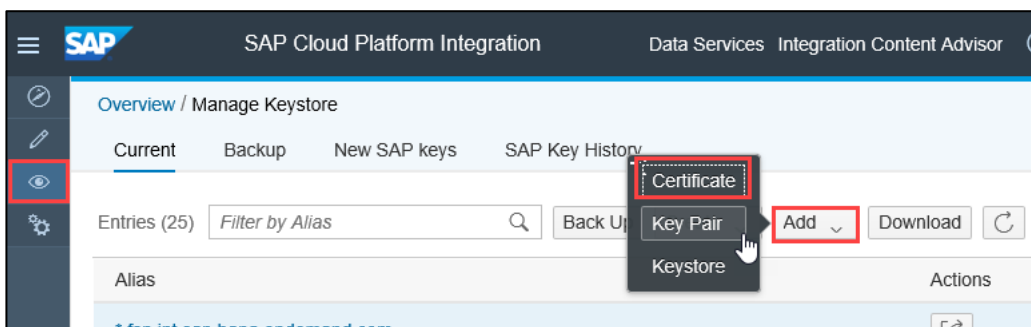
4. In the pop-up window, enter the **Alias** for the Key Pair (e.g. `cssz_public_key`). Then select the file with the Czech Social Security Administration Public Key Certificate. The file with certificate should be in CRT or CER format.

i Note

Same Czech Social Security Administration Public Key Certificate is also used for verification of signature when final status of submission is received.

3.2.2 Uploading of Czech Social Security Administration SSL Certificate to Keystore

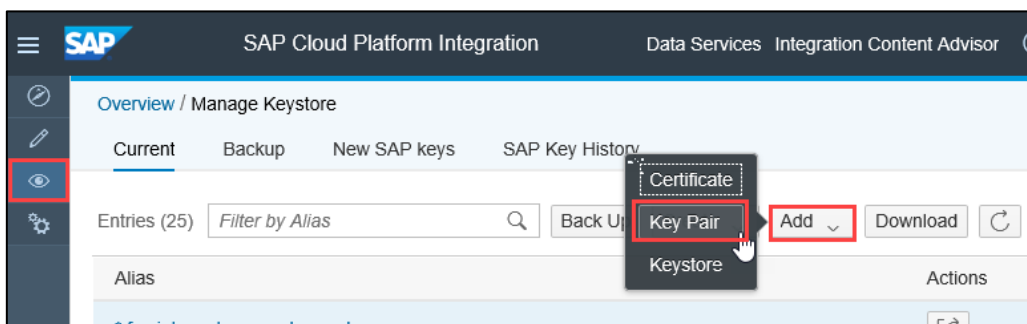
1. In the CPI, open the *Overview* section.
2. In the *Manage Security* section, click the **Keystore** tile.
3. Click the *Add* button and select **Certificate**.



4. In the pop-up window, enter the **Alias** for the Key Pair (e.g. epodani_cssz_cz). Then select the file with Czech Social Security Administration SSL Certificate. The file with the certificate should be in CRT or CER format.

3.2.3 Uploading of Qualified System Certificate to Keystore

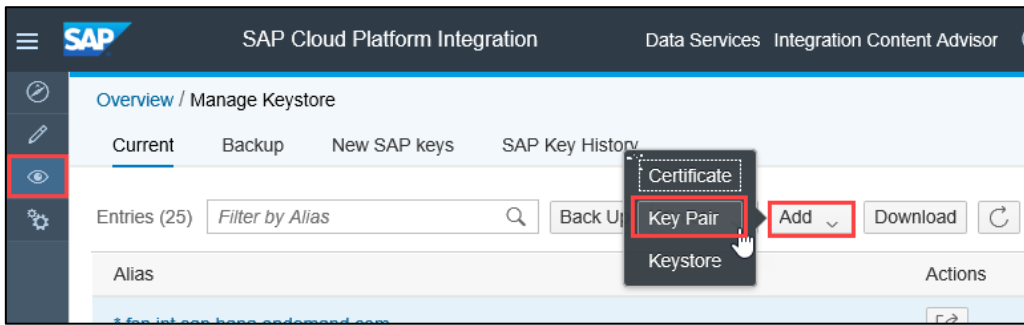
1. In the CPI, open the *Overview* section.
2. In the *Manage Security* section, click the **Keystore** tile.
3. Click the *Add* button and select **Key Pair**.



4. In the pop-up window, enter the **Alias** for the Key Pair (e.g. customer_key_pair). Then select the file with *Qualified System Certificate*. The file with the certificate should be in P12 or PFX format. Enter the corresponding password for this file in **Password** field.

3.2.4 Uploading of Encryption Certificate for DZDPN Notification to Keystore

1. In the CPI, open the *Overview* section.
2. In the *Manage Security* section, click the **Keystore** tile.
3. Click the *Add* button and select **Key Pair**.



4. In the pop-up window, enter the **Alias** for the Key Pair (e.g. `dzdpn_key_pair`). Then select the file with Encryption Certificate for DZDPN Notification. The file with the certificate should be in P12 or PFX format. Enter the corresponding password for this file in **Password** field.

i Note

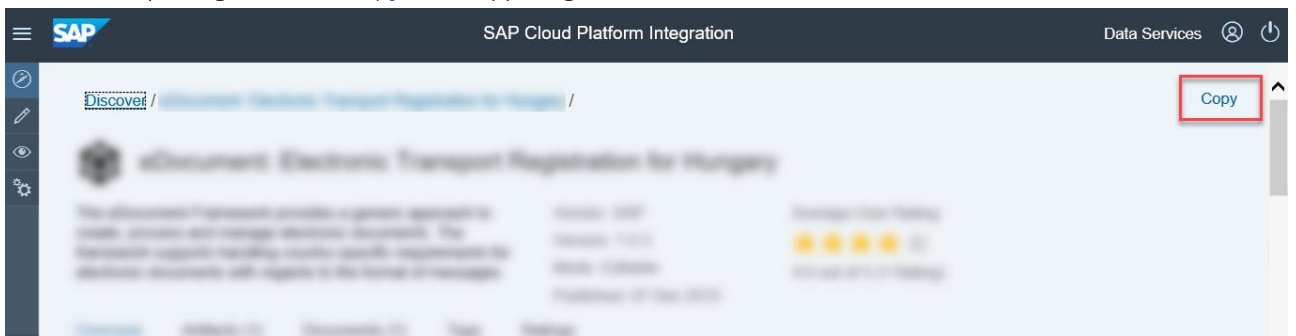
The public part of the Encryption Certificate for DZDPN Notification will be sent to the Czech Social Security Administration as part of the DZDPN request. The DZDPN response from the Czech Social Security Administration will be encrypted with the provided public certificate and the private part will be used for decryption.

3.3 Copy Published Integration Package

1. In the *Discover* section of your tenant, select the package Human Experience Management solutions from SAP Integration with Czech Social Security Administration.



2. Select the package and click *Copy* in the upper right corner.



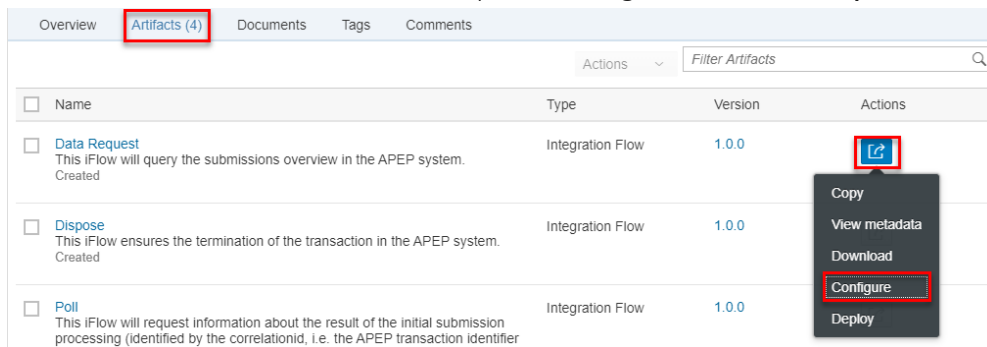
3.4 Configure Integration Flows

i Note

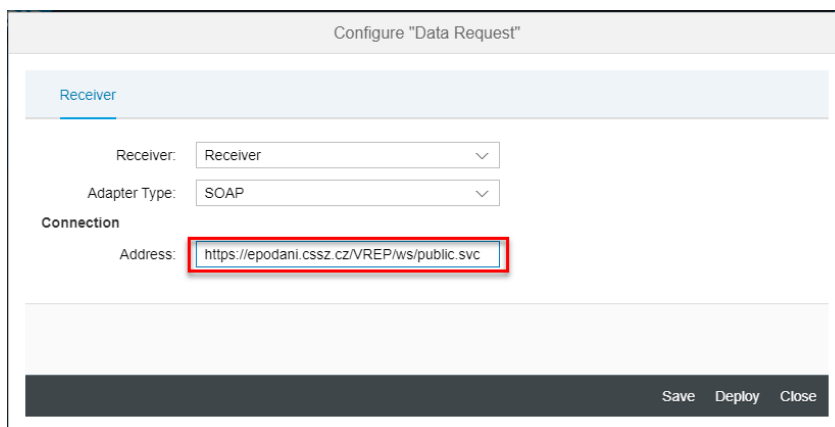
The following steps must be executed for the package that was copied as described in chapter 3.3.

3.4.1 Configuration of Data Request iFlow

1. Go to the integration package that was copied from the original Human Experience Management solutions from SAP Integration with Czech Social Security Administration.
2. Click the *Artifacts* tab
3. Click on the *Actions* button that corresponds to integration flow **Data Request** and choose **Configure**



4. Click the *Receiver* tab
5. Fill the URL for productive APEP (it's described on the same web page as the SSL certificates - see Chapter 2.5) as value for *Address* field (e.g. <https://epodani.cssz.cz/VREP/ws/Public.svc>)



6. Select *Deploy*.

3.4.2 Configuration of Dispose iFlow

1. Go to the integration package that was copied from the original Human Experience Management solutions from SAP Integration with Czech Social Security Administration
2. Click the *Artifacts* tab
3. Click on *Actions* button that corresponds to integration flow **Dispose** and choose **Configure**
4. Click the *Receiver* tab
5. Fill URL for productive APEP (it's described on the same web page as SSL certificates - see Chapter 2.5) as value for *Address* field (e.g. <https://epodani.cssz.cz/VREP/ws/Public.svc>)
6. Select *Deploy*

3.4.3 Configuration of Poll iFlow

1. Go to the integration package that was copied from the original Human Experience Management solutions from SAP Integration with Czech Social Security Administration.
2. Click the *Artifacts* tab
3. Click on *Actions* button that corresponds to integration flow **Poll** and choose **Configure**
4. Click the *Receiver* tab
5. Fill URL for productive APEP (it's described on a same web page as SSL certificates - see Chapter 2.5) as value for *Address* field (e.g. <https://epodani.cssz.cz/VREP/ws/Public.svc>)
6. Click the *More* tab
7. Fill the alias of the public certificate which is used for signature verification by Czech Social Security Administration as value for *verify_cert_alias* field (e.g. [cssz_public_key](#), see Chapter 3.2.1)

Note

If the value of [verify_cert_alias](#) is set as empty, then signature verification process will be turned off and received data will be processed without verification.

8. Select *Deploy*

3.4.4 Configuration of Submit iFlow

1. Go to the integration package that was copied from the original Human Experience Management solutions from SAP Integration with Czech Social Security Administration
2. Click the *Artifacts* tab
3. Click on *Actions* button that corresponds to integration flow **Poll** and choose **Configure**
4. Click the *Receiver* tab
5. Fill URL for productive APEP (it's described on a same web page as SSL certificates - see Chapter 2.5) as value for *Address* field (e.g. <https://epodani.cssz.cz/VREP/ws/Public.svc>)
6. Click the *More* tab

-
7. Fill the alias of public certificate which is used for encryption of content which is send to Czech Social Security Administration as the value for *encrypt_cert_alias* field (e.g. **cssz_public_key**, see Chapter 3.2.1)
 8. Fill the alias of the key pair which is used for the signing of content which is sent to Czech Social Security Administration as value for *sign_cert_alias* field (e.g. **customer_key_pair**, see Chapter 3.2.3)
 9. Fill the alias of the key pair which is used as an encryption certificate for DZDPN notification as the value for *dzdpn_cert_alias* field (e.g. **dzdpn_key_pair**, see Chapter 3.2.4)
 10. Select *Deploy*

4 Configuration Steps in SAP ERP or SAP SuccessFactors Employee Central Payroll

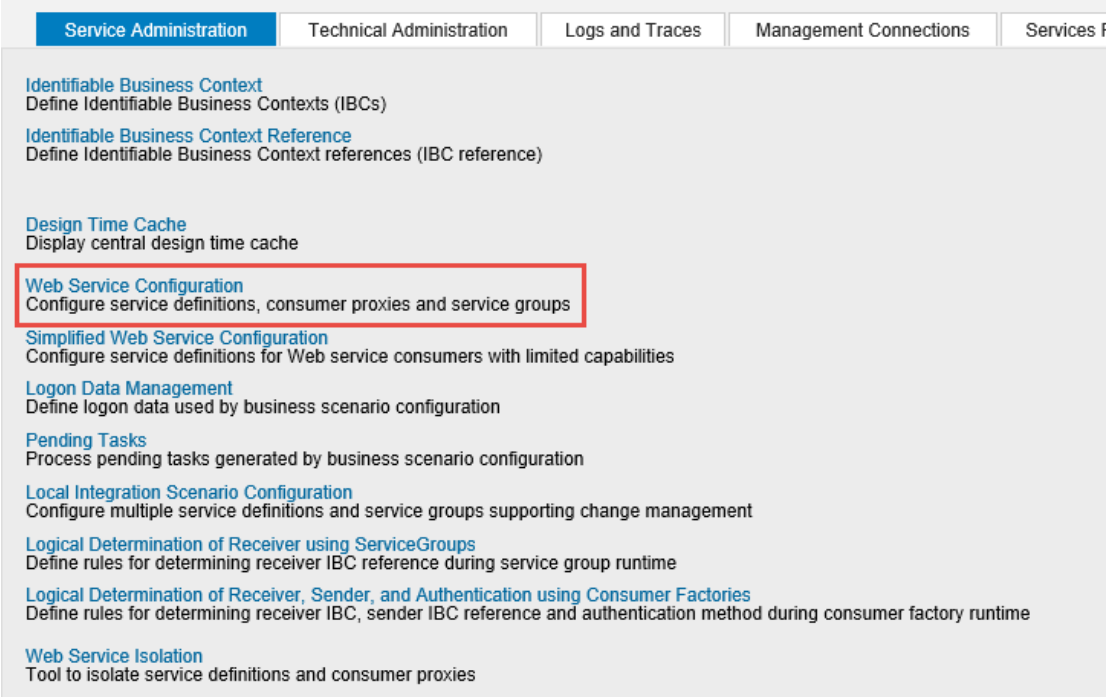
4.1 SOAMANAGER configuration

The SOA Manager is a transaction for configuring and monitoring Web Services. It is run in a web browser.

Note

Some details (names of tabs etc.) might be slightly different depending on your release version.

1. Execute the transaction code **SOAMANAGER**. This opens a new window in your web browser
2. In the **Service Administration** tab, click [Web Service Configuration](#) link



The screenshot shows the SOAMANAGER web interface. At the top, there are five tabs: **Service Administration** (selected), Technical Administration, Logs and Traces, Management Connections, and Services F. Below the tabs, the main content area lists several configuration options:

- 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 (highlighted with a red box)
- 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

3. Then in the *Search Criteria* section, type the Object Name **CO_HRPAYCZ_APEP_IBUSINESS_TRAN**

Web Service Configuration (HRI;000)

Design Time Object Search Configuration Search

Search Criteria

Object Type is All

Object Name is **PEP_IBUSINESS_TRAN**

Maximum Number of Results: 100

Search Clear Values Reset Search Criteria

Search Result

Internal Name	Type	Name
CO_HRPAYCZ_APEP_IBUSINESS_TRAN	Consumer Proxy	IBusinessTransactions

- Click the Internal name **CO_HRPAYCZ_APEP_IBUSINESS_TRAN**
- The following table lists the logical port name, description, and, path for each logical port.

Logical Port Name	Description	Path
DATA_REQUEST	CPI port for DataRequest operation	/cxf/HCI/PAYROLL/CZ/APEP/DATA_REQUEST
DISPOSE	CPI port for Dispose operation	/cxf/HCI/PAYROLL/CZ/APEP/DISPOSE
POLL	CPI port for Poll operation	/cxf/HCI/PAYROLL/CZ/APEP/POLL
SUBMIT	CPI port for Submit operation	/cxf/HCI/PAYROLL/CZ/APEP/SUBMIT

Following steps needs to be repeated for each line from this table using values from this line.

- In the **Configurations** tab, click the *Create* button and select *Manual Configuration*.

Web Service Configuration (HRI;000)

Details of Consumer Proxy: CO_HRPAYCZ_APEP_IBUSINESS_TRAN

Overview **Configurations** Details

Define Logical Ports

Create Set Log.Port Default Activate Deactivate Delete

WSDL Based Configuration Port State Logica

Manual Configuration

Process Integration Runtime

Local Shortcut Configuration

Service Registry Based Configuration

Template Based Configuration

WSDL based Configuration with Template

- Step 1 - **Logical Port name**
Enter the *Logical Port Name* and a *Description*.

8. Click *Next*.

9. Step 2 - **Consumer Security**

The Consumer Security tab page configuration depends on the security being used for the SAP ERP or SAP

S/4HANA - SAP CLOUD PLATFORM INTEGRATION communication.

- a) If you use basic authentication, select the User ID / Password radio button and enter the User Name and Password.
- b) If you use certificate-based authentication, select the X.509 SSL client certificate radio button and ensure that the required certificates are available in transaction STRUST.

i Note

If you do not see this radio button or cannot select it, please refer to SAP Notes mentioned in Chapter 2.2.

10. Click *Next*.

11. Step 3 - **HTTP Settings**

On the HTTP Settings tab page, make the following entries:

Note

The screenshots may look slightly different in your system depending on the release, but all the required fields must be available.

URL Access Path

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: []

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

Enter the appropriate values in the fields above according to the information below:

Port 443 is the standard port for the HTTPS protocol.

To find the Host, go to [Cloud Integration Web UI](#), choose [Monitor](#) and under [Managed Integration Content](#) go to [All](#). Use the search to find your integration flow as shown in the screenshot below:

Manage Integration Content

Integration Content (147)

Name Status

Integration Flow Started

Deployed On: Jun 01, 2017, 16:17:48 ID: []

Deployed By: [] Version: 1.1.0

ENDPOINTS STATUS DETAILS ARTIFACT DETAILS

https://[host]/cxt/

STATUS DETAILS

The Integration Flow is deployed successfully.

ARTIFACT DETAILS

Monitor Message Processing

View Integration Flow

Note that 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.

12. Click [Next](#).

13. Step 4 - SOAP Protocol:

Set *Message ID Protocol* to **Suppress ID Transfer**

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**

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

4.2 Basic Connection Test

To test the communication, the best way is to execute the test report from your SAP ERP or SAP SuccessFactors Employee Central Payroll. Follow these steps:

1. Execute the transaction code **SA38 (or SE38)**.
2. Fill the Program field with the value **HCZUCPIO_CHECK_SPROXY**.
3. Click the *Execute (F8)* button.
4. If *Test summary* is *OK* then basic test of connection to Czech Social Security Administration through SCPI was success.

```

APEP connection test (by using generated SPROXY objects)

APEP connection test (by using generated SPROXY objects)

Testing SCPI integration.
IBusinessTransactions ( Proxy Class CO_HRPAYCZ_APEP_IBUSINESS_TRAN ) :
*Logical port DATA_REQUEST configuration exists: OK
*Logical port DATA_REQUEST ping: OK
*DataRequest: OK
*Logical port DISPOSE configuration exists: OK
*Logical port DISPOSE ping: OK
*Dispose: OK
*Logical port POLL configuration exists: OK
*Logical port POLL ping: OK
*Poll: OK
*Logical port SUBMIT configuration exists: OK
*Logical port SUBMIT ping: OK
*Submit: OK
Test summary: OK

```


www.sap.com/contactsap

© 2016 SAP SE or an SAP affiliate company. All rights reserved.
No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.
SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies. Please see <http://www.sap.com/corporate-en/legal/copyright/index.epx#trademark> for additional trademark information and notices.

Material Number:



