

Configuration Guide

Netbox Payslip Integration

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CUSTOMER

SAP ERP Integration with Netbox Finland

Using REST API with SAP Cloud 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	2025-09-24	Initial version

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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 Human Experience Management solutions from SAP for Finland. This document lists the required setup steps you perform in the SAP ERP or SAP SuccessFactors Employee Central Payroll 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 Netbox 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 Netbox 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 'HRFI: Integration for payslip' Solution

You installed and configured the "HRFI: Integration for payslip" solution in your test and productive SAP back-end system. If you did not install the latest support package for your system, refer to the latest SAP Note with latest improvements of the "HRFI: Integration for payslip" 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 the configurations steps described in this guide are as follows:

- [3582082-HRFI: Integration for payslip](#)

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 Integration.

Inbound HTTPS connections are not required for Finland. 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 Integration."](#)

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](#).

2.3 Set Up SAP Cloud Integration Tenants

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 (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 BTP Cockpit.

2.4 Netbox SSL Certificate

The Netbox SSL certificate for HTTPS communication is used on the communication url received from Netbox support with user credentials. In case of issues Netbox support can be contacted to get the actual Netbox SSL Certificate.

Note

Instructions how to download the SSL Certificate from the Netbox url by using the internet browser can be found on the internet by using a common internet search engine with the query "Download the SSL Certificate from a Website."

2.5 Netbox REST API user credentials

The Netbox REST API user credentials are required for communication with Netbox by using REST API. More information and the credentials can be obtained from [Netbox support](#)

Note

It's recommended to get Netbox REST API user credentials for the SAP Cloud Integration tenant owner organization.

3 Configuration Steps in SAP Cloud Integration

3.1 General Information

The package SAP ERP Integration with Netbox Finland contains the following iFlows:

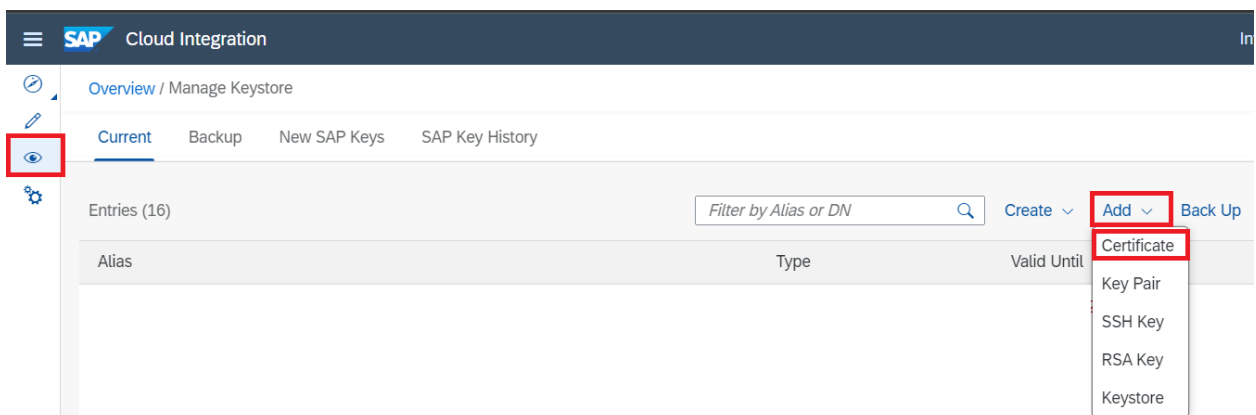
iFlow Name in WebUI	Project Name/Artifact Name
Send Payslip to Netbox	com.sap.GS.HR.FI.Payslip

3.2 Deploying Credentials and Certificates

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

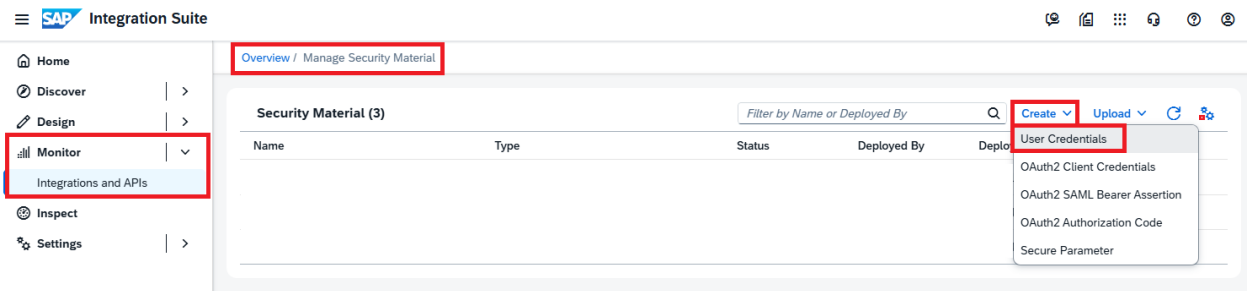
3.2.1 Uploading of Netbox SSL Certificate to Keystore

- 1) In the CI, open the *Overview* section (in some version of SAP Cloud Integration, the section might be called *Monitor* instead)
- 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. `netbox_ssl`). Then select the file with Netbox SSL Certificate. The file with the certificate should be in CRT or CER format.



3.2.2 Uploading of Netbox user credentials to Keystore

- 1) In the CI, open the [Overview](#) section (in some version of SAP Cloud Integration, the section might be called [Monitor](#) instead)
- 2) In the [Manage Security](#) section, click the **Security material** tile
- 3) Click the [Create](#) button and select **User credentials**



- 4) Fill the fields:
 - o **Name**: enter a **name** for the Key Pair (e.g. netbox_credentials).
 - o **Description**: optional
 - o **Type**: User Credentials
 - o **User**: <Netbox username>
 - o **Password**: <Netbox password> - repeat twice

Create User Credentials

Name: *

Description:

Type: * ▼

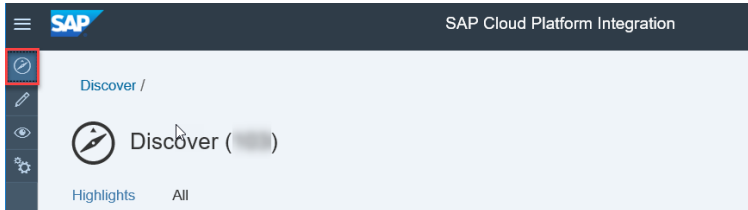
User: *

Password:

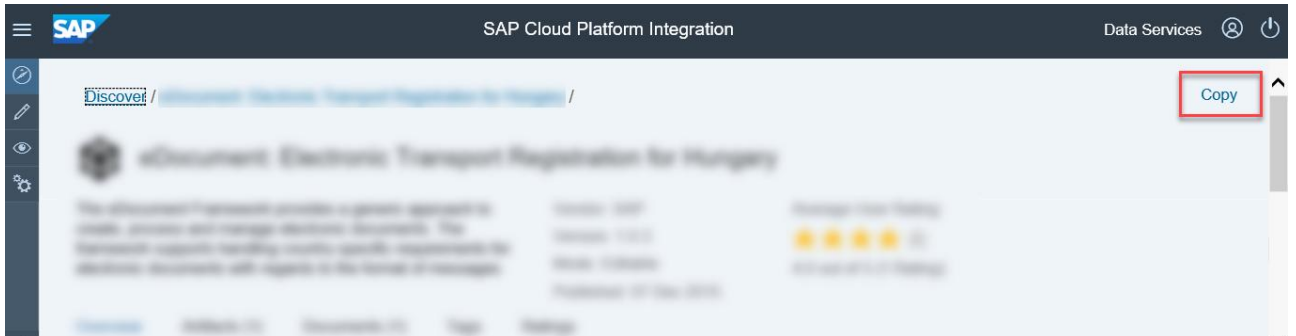
Repeat Password:

3.3 Copy Published Integration Package

- 1) In the *Discover* section of your tenant, select the package SAP ERP Integration with Netbox Finland.



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



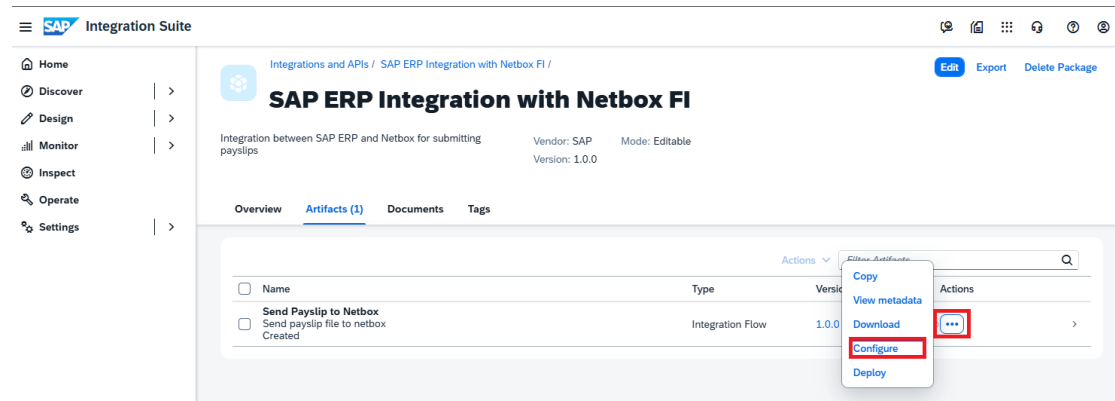
3.4 Configure Integration Flows

i Note

The following steps must be executed for the package that was copied as described in chapter 3.2.2.

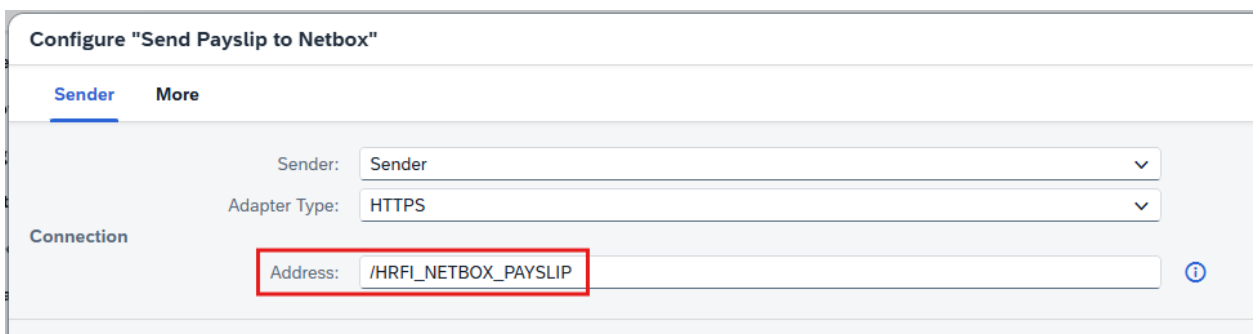
3.4.1 Configuration of Send Payslip to Netbox iFlow

- 1) Go to the integration package that was copied from the original SAP ERP Integration with Netbox Finland.
- 2) Click the *Artifacts* tab
- 3) Click on the *Actions* button that corresponds to integration flow Send Payslip to Netbox and choose **Configure**



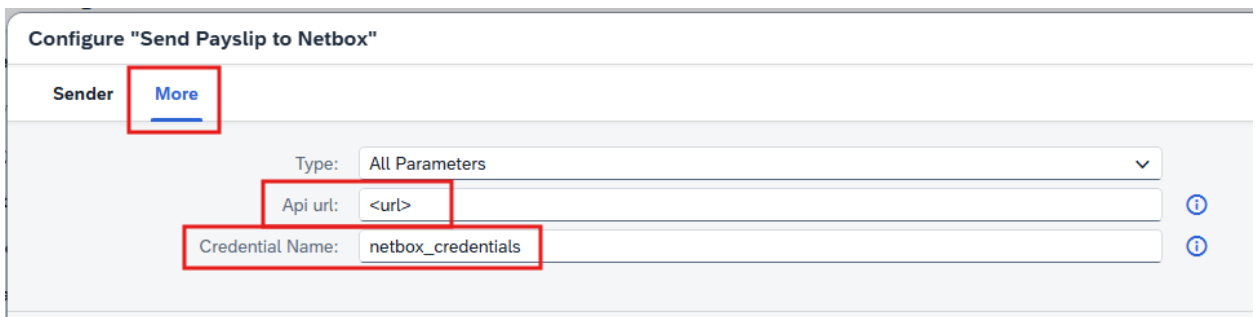
In the *Sender* tab:

- 4) No configuration necessary. Optional, change the *Address* field to fit your needs if a business case requires it.



Click the *Receiver* tab

- 5) In Api url, fill the URL received from Netbox (see section 2.5 for support contact information)
- 6) In Credential Name, fill the name of user credentials created in Chapter 3.2.2
- 7) Select *Deploy*.



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

In the SAP back-end system, you need to configure the HTTPS connection to the CI solution.

i Note

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

4.1 Configuration of connection to Enterprise Certificate User Manager

To set up the HTTPS connection, you need the URL of the tenant (the TMN URL you received when the tenant was provisioned).

You can also find the URL in the CI Overview → Manage Integration Content → Select deployed iFlow (*highlighted in red in image below*).

i Note

To setup a secure HTTPS connection between the SAP back-end system and the SAP Cloud Integration tenant, add the load balancer root certificate to the SAP back-end system trust store.

- 1) Execute the transaction code **SM59**
- 2) To create a new connection, select [Edit → Create](#)
- 3) For the RFC destination, enter value **HR_FI_CPI_PYSL_REST_API** for the connection name
- 4) Set connection type **G** (HTTP Connection to External Server)

The screenshot shows the configuration page for the iFlow 'Send Payslip to Netbox'. At the top right, there are buttons for 'Restart', 'Undeploy', and 'Download'. Below the title, it shows 'Deployed On:' and 'Deployed By:' fields, and 'ID: com.sap.GS.HR.FI.Payslip' and 'Version:' fields. The 'Package: SAP ERP Integration with Netbox FI' is also displayed. There are four tabs: 'Endpoints', 'Status Details', 'Artifact Details', and 'Log Configuration'. The 'Endpoints' tab is active, showing a URL field with 'https://' followed by a red box around the domain part and a green box around the path '/HRFI_NETBOX_PAYSLIP'. Below the 'Status Details' tab, there is a green message box with a checkmark: 'The Integration Flow is deployed successfully.'

- 5) Enter **CI - Payslip submission** in the *Description* field
- 6) On the *Technical Settings* tab, enter the following values
 - a) Target Host: < IFLMAP URL for the CI tenant >

i Note

Make sure that you don't enter "https://" in the field, Target Host
 Example: 1234567890-iflmap.hcisbp.eu3.hana.ondemand.com

- b) Service No.: **443**
- c) Path Prefix: **/http/<sender address>/** (use sender address as configured in step 4 of section 3.4.1 – if you didn't change the value, use the default **/http/HRFI_NETBOX_PAYSLIP/**) You can also find the path in the CI Overview → Manage Integration Content → Select deployed iFlow (*highlighted in green in image above*).
- d) HTTP Proxy Options **<Enter own HTTP proxy values>**

The screenshot displays the SAP configuration interface for an RFC Destination named 'HR_FI_CPI_PYSL_REST_API'. The 'Technical Settings' tab is active. Key fields are highlighted with red boxes: 'RFC Destination' (HR_FI_CPI_PYSL_REST_API), 'Connection Type' (G), 'Description' (CI - Payslip submission), 'Host' (empty), 'Path Prefix' (/http/HRFI_NETBOX_PAYSLIP/), and 'Port' (443). The interface also shows tabs for Administration, Logon & Security, and Special Options.

- 7) Click the *Logon & Security* tab
 There are two options for setting up the authentication: **basic authentication** or **client certificate-based authentication**. The more secure option is to use client certificates.
 - a) **Basic Authentication**
 Create a user in Cloud Integration and assign the **ESBMessaging.send** role.

i Note

More information can be found on SAP Help Portal [Defining Permissions for Senders to Process Messages on a Runtime Node](#)

In the *Logon & Security* tab enter:

- i) *Logon with user*: Choose **Basic Authentication** and enter a valid **user** and **password** for logging on to CI
- ii) *Logon with ticket*: Select **Do Not Send Logon Ticket**
- iii) *Security options*: Select **SSL Active** and a PSE ID with necessary certificates

The screenshot shows the SAP configuration interface for an RFC Destination named 'HR_FI_CPI_PYSL_REST_API'. The 'Logon & Security' tab is active. The 'Logon Procedure' section is expanded, showing three options: 'Logon with User', 'Logon with Ticket', and 'Logon with MQTT/AMQP'. Under 'Logon with User', the 'Basic authentication' radio button is selected and highlighted with a red box. Below it, there are input fields for 'User', 'PW Status' (set to 'saved'), and 'Password'. Under 'Logon with Ticket', the 'Do not send logon ticket' radio button is selected and highlighted with a red box. Under 'Logon with MQTT/AMQP', there are input fields for 'Users', 'PW Status' (set to 'is initial'), and 'Password'. The 'Security Options' section is also visible, with the 'Status of Secure Protocol' set to 'Active' (highlighted with a red box) and the 'SSL Client PSE ID' set to 'DEFAULT SSL Client (Standard)' (highlighted with a red box).

b) **Client certificate-based authentication**

Set up the client certificate in the SAP back-end system and upload to Cloud Integration in the certificate-to-user mapping as described in the blog [Cloud Integration - How to Setup Secure HTTP Inbound Connection with Client Certificates](#)

8) To perform a quick test, click on **Connection Test** button

If everything is correctly set then **HTTP Response Status** should be with Value 204 – No Content

Destination: HR_FI_CPI_PYSL_REST_API
Ty.: HTTP connection to external server

Test Result Response Header Fields Response Body Response Text

Detail	Value
HTTP Response Stat.	204
Status Text	No Content
Test Call Duration	314 ms

9) In your tenant, you under Overview → Monitor Message Processing (or Monitor → Integrations and APIs, depending on your tenant version) , you should see one successfully executed Send Payslip to Netbox integration flow

Cloud Integration

Overview / Monitor Message Processing

Time: Past Hour Status: All

Mar 30, 2023, 15:20:21 - Mar 30, 2023, 16:20:21

Messages (2) << < 1 / 1 > >> ↻

Artifact Name	Status
Request Tax Card	Completed

Mar 30, 2023, 16:18:12 1 sec 643 ms



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