

## Implementation Guide

SAP SuccessFactors Employee Central Payroll  
Document Version: Q4 2019

CUSTOMER

# Altinn Communication Framework (ACF) Integration Package for Norway Payroll

Using 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.
<b>Example</b>	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.
<b>Example</b>	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.

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# 1 Introduction

Altinn is an internet portal for digital dialogue between businesses, private individuals and public agencies. It is also a technical platform that government bodies can use to develop digital services.

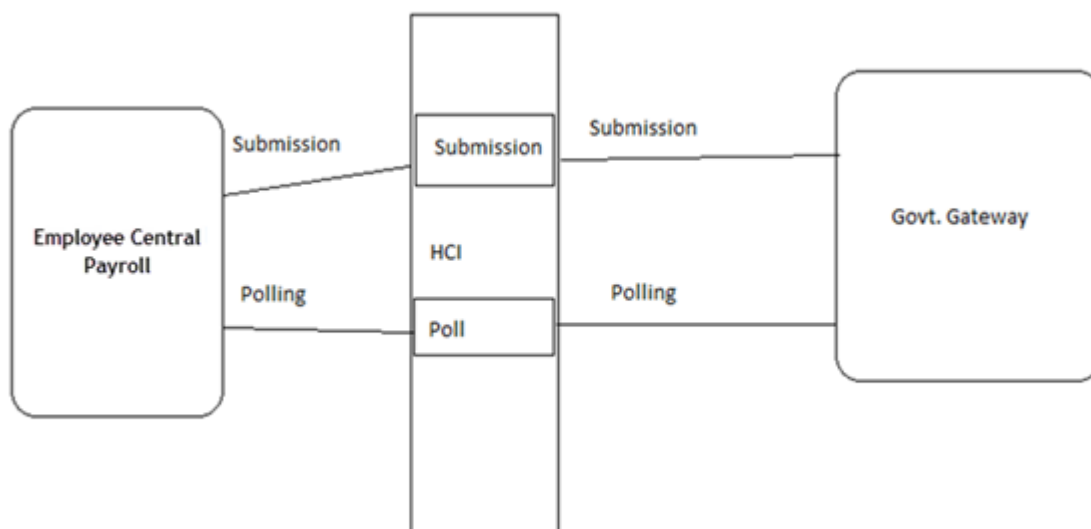
Altinn is developed, operated and managed by the Altinn co-operation, that consists of multiple government bodies. They have a lot of useful information for those who wish to establish and run businesses in Norway.

## 2 Overview of Integration Scenarios

Throughout this topic we assume the following setup of technical components and communication paths: The government gateway is being connected to one of the SAP Cloud Integration (SCI) tenants assigned to the customer.

The terms "inbound" and "outbound" reflect the perspective of Employee Central Payroll:

- Inbound refers to message processing from the government gateway to Employee Central Payroll.
- Outbound refers to message processing from Employee Central Payroll to the government gateway.



### 2.1 Outbound

#### 2.1.1 RPUACFVO\_SAPGUI: Altinn Communication Framework (ACF) Manager

This report enables you to process documents that you send to or receive from the Altinn portal. You can use this report for the following:

- Check details of documents that you send to or receive from the Altinn portal
- Send documents to the Altinn portal
- Retrieve document statuses and messages from your Altinn message box

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## 2.1.2 RPUACFVO\_CHECK\_SPROXY: ACF - Altinn connection test (by using generated SPROXY objects)

This report checks whether the Altinn Communication Framework (ACF) can access the Altinn web services through SAP NetWeaver Process Integration.

# 3 Setup

For setting up the communication of Employee Central Payroll with the government gateway, two types of setup are required: the setup on the SCI side and the setup on the Employee Central Payroll side.

## 3.1 Setup of SCI

Altinn Communication Framework (ACF) Integration Package for Norway Payroll consists the following package:

- *Altinn Communication Framework (ACF) Integration Package for Norway Payroll*

This package consists of seven Integration Flows that you deploy **once for all**. This package will remain the same every year.

The screenshot shows the SAP Integration Advisor interface. The top navigation bar includes 'Data Services' and 'Integration Advisor'. The breadcrumb trail is 'Design / Altinn Communication Framework (ACF) Integration Package For Norway Payroll /'. The main title is 'Altinn Communication Framework (ACF) Integration Package For Norway Payroll'. Below the title, there is a description: 'This integration package enables you to communicate with the Altinn portal with Security level 2 (Login with Altinn code letter/SMS-code) by using the Altinn Communication Framework.' It also lists 'Vendor: SAP', 'Mode: Editable', and 'Version: 1.0.0'. A list of seven integration flows is provided: GetCorrespondenceForEndUserSystemsBasicV2, ArchiveCorrespondenceForEndUserSystemBasic, SubmitFormTaskBasic, GetAltinnSubmissionStatusBasic, GetReceiptBasic, GetCorrespondenceListForReporteeBasic, and GetAuthenticationChallenge. Other details include 'Package ID: NorwayPayroll', 'Supported Platform: SAP Cloud Platform Integration', 'Category: Integration', 'Created: 27 Jun 2019', and 'Created by: 1322214'.

## 3.1.1 Deploy certificates and credentials to SCI tenants

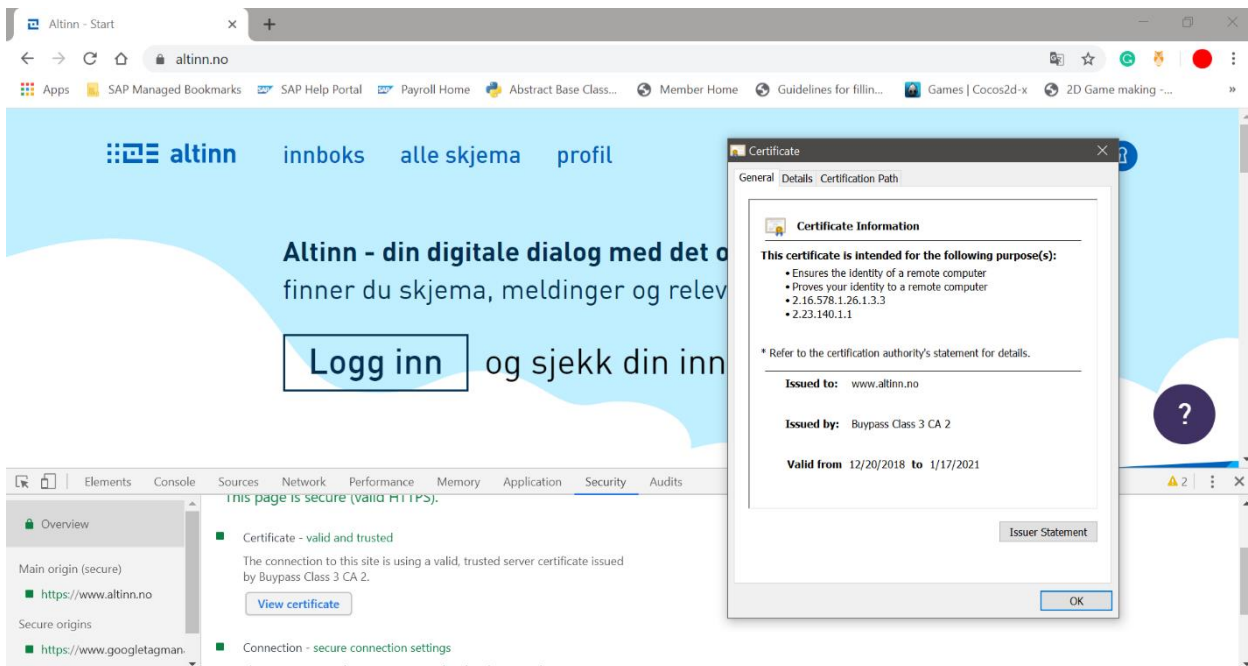
For the communication with the government gateway, you must make sure that the certificates from government authorities are part of the Java KeyStore that is uploaded to the SCI tenant.

### How do I deploy certificates to SCI tenants?

Take the following steps to download the certificates from the website of Altinn.

Enter the URL <https://www.altinn.no>

1. Right click on the Page and select *Inspect*
2. Select *Security Tab* and click on *View Certificate*
3. Copy the certificate to a file using the *Copy to File* button and save it to your machine



4. Open a ticket to SCI Cloud Operations and request them to update Java KeyStore with the certificates

## 3.1.2 Copy Integration Flows to workspace

Take the following steps to copy all Integration Flows in the two packages to your workspace:

1. In your browser, go to the WebUI of the tenant (URL: `<Tenant URL>/itspaces`)
2. From the menu in the upper left corner, choose *Discover*
3. Search for the package: **Altinn Communication Framework (ACF) Integration Package for Norway Payroll**
4. Click the package name
5. In the lower right corner, choose *Copy*

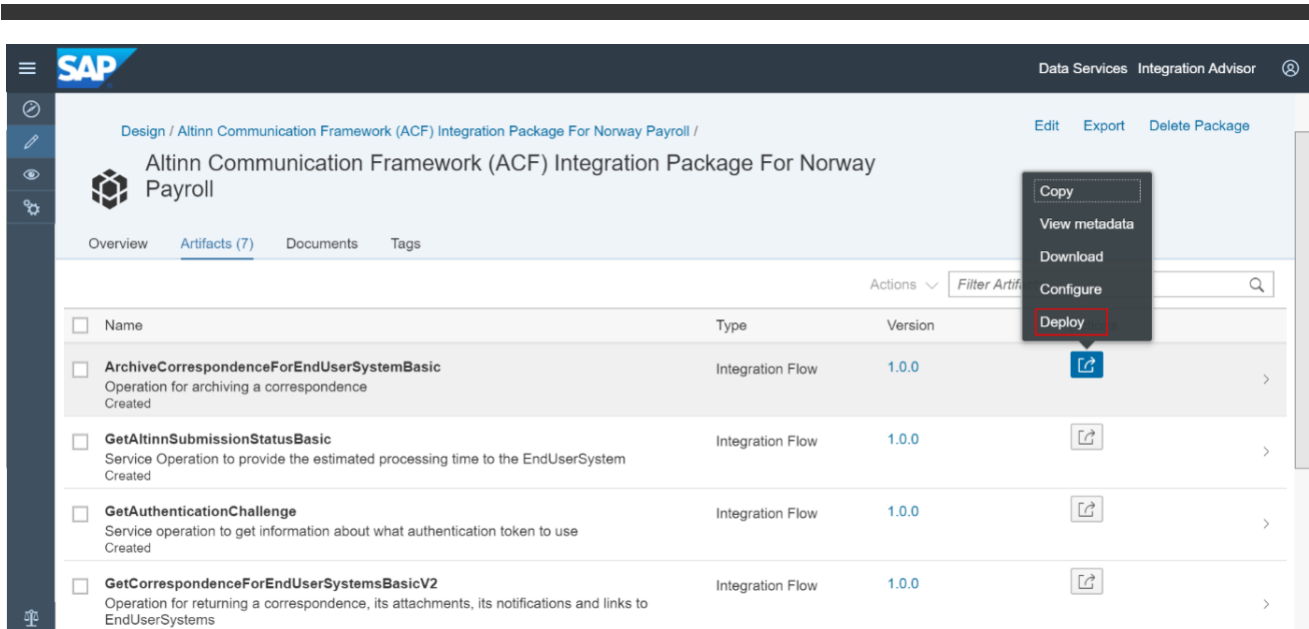


Each artifact corresponds to one service.

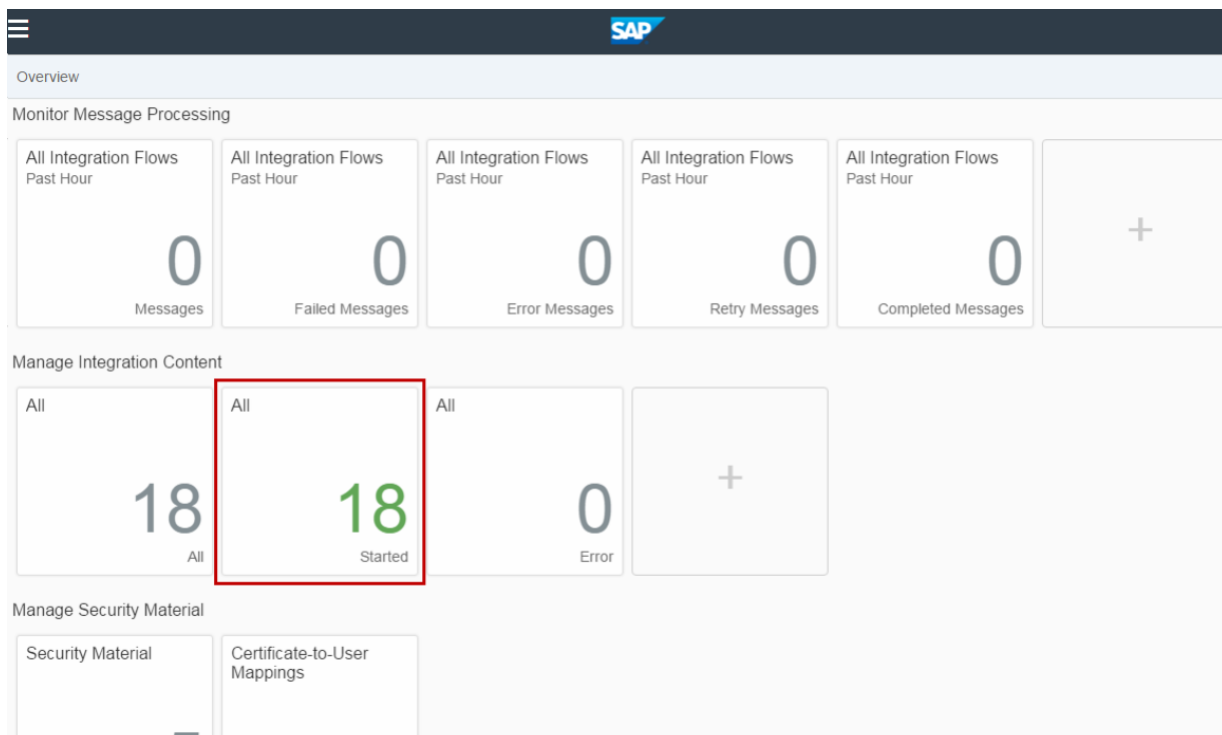
## 3.1.3 Deploy Integration Flows on test and productive tenants

Take the following steps to deploy the Integration Flows on test and productive tenants:

1. In your SCI tenant, from the menu in the upper left corner, choose *Design*.
2. Click the package name. *Select Artifacts Tab*.
3. For the Integration Flow that you want to deploy, choose *Actions -> Deploy*.



4. Repeat steps 1-3 for each of the Integration Flows in the package.
5. Check and make sure all Integration Flows have been deployed successfully.
  - a. In your SCI tenant, choose *Monitor* from the menu in the upper left corner.
  - b. Under *Integration Content Monitor*, choose the *Started* tile.



- c. Check the deploy status of each Integration Flow.  
If the *Status* is *Started*, it means the Integration Flow has been deployed successfully.

6. Note down the URLs of the endpoints for each service.  
This URL will be used later for the setup of Employee Central Payroll system.
  - a. Select the Integration Flow form the list.

The screenshot displays the SAP Integration Advisor interface. On the left, a list of integration flows is shown, including 'Employment Information - Pay Date File', 'GetCorrespondenceForEndUserSystem sBasicV2\_copy', 'TEST\_GetCorrespondenceForEndUser SystemsBasicV2\_copy', 'toolbox\_script\_saxon9\_xslt', 'TEST\_EXCEPTION', 'Getting Started Flow', and 'ArchiveCorrespondenceForEndUserSvst'. The right pane shows the details for 'GetCorrespondenceForEndUserSystem sBasicV2\_copy', including deployment information and a list of endpoints. The 'Endpoints' tab is active, showing a URL highlighted in a red box: `https://c0310-iff1map.hc1sb.int.sap.eu2.hana.ondemand.com/cxf/HCI/PAYROLL/NORWAY/GetCorrespondenceForEndUserSystemsBasicV2_Sunny`. Below the URL, 'WSDL' and 'WSDL without policies' are listed with download icons.

- b. Note down the endpoint URL present on the right side of the screen under Endpoints Tab.

## 3.2 Setup of Employee Central Payroll System

In the Employee Central payroll system, you need to configure the Web Services in SOA MANAGER through which the communication between Employee Central Payroll system and the Government Gateway via SCI can be established. The following steps take the *ArchiveCorrespondenceForEndUserSystemBasic* as an example.

### Note

You must configure the proxy for each of the reports. You only need to configure the proxy **once**. For more information, see the table of object names and port names at the end of this section.

### Prerequisites

- You have implemented SAP notes 2836655 and 2841431.
- Open the SOA MANAGER using transaction `SOAMANAGER`.
  - Click *Web service configuration*.
  - Search for the object name `CO_HRNO_AL2ICORRESPONDENCE_EXT` and click *Search*.
  - Click the internal name link and then select *Create > Manual Configuration*.
  - Enter a logical port name, for example, `HRNO_AL2_ARCHIVECORRESPONDENCEFORENDUSERSYSTEMBASIC`, select the checkbox *Logical Port is Default*, and click *Next*.

Web Service Configuration (HRI;000) Help Back

New Manual Configuration of Logical Port for Consumer Proxy 'CO\_HRNO\_AL2ICORRESPONDENCE\_EXT'

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

Back Next Finish Cancel

General Configuration Settings

Logical Port Name: HRNO\_AL2\_ARCHIVECORRESPONDENCEFORENDUSERS: Logical Port is Default:

Description: Port of HRNO\_AL2\_ARCHIVECORRESPONDENCEFORENDUSERSYSTEMBASIC

- Select *User ID / Password*. Enter the user name and password of the SCI user. Then click *Next*.

Web Service Configuration (HRI;000) Help Back

New Manual Configuration of Logical Port for Consumer Proxy 'CO\_HRNO\_AL2ICORRESPONDENCE\_EXT'

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

Back Next Finish Cancel

Configuration of Consumer Settings without WSDL Document. LP=HRNO\_AL2\_ARCHIVECORRESPONDENCEFORENDUSERSYSTEMBASIC1

Authentication Level: Basic

Authentication Settings

User ID / Password  
 SAP Authentication Assertion Ticket  
 X.509 SSL Client Certificate

User ID/Password

User Name:   
Password:

- Enter the relevant information and then click *Next*.

- o URL Access Path  
Enter the endpoint URL of iflmap of the SCI tenant on which your Integration Flow is deployed.  
For example, <https://...../cxfl/HCI/PAYROLL/NORWAY/GetReceiptBasic>
  - o Enter Transport Binding  
Make sure that Maximum Wait is **999** and the Compress Response is **False**.
8. In SOAP Protocol, select *Suppress ID Transfer* for Message ID Protocol. Click *Next*.

9. Proceed with the default settings and click *Finish*.
10. On the *Define Logical Ports* page, select the entry and click *Activate*.
- Repeat the same procedure to set up the proxies for all the reports. See the following table for the proxy object names and port names used in step 3 and step 5:

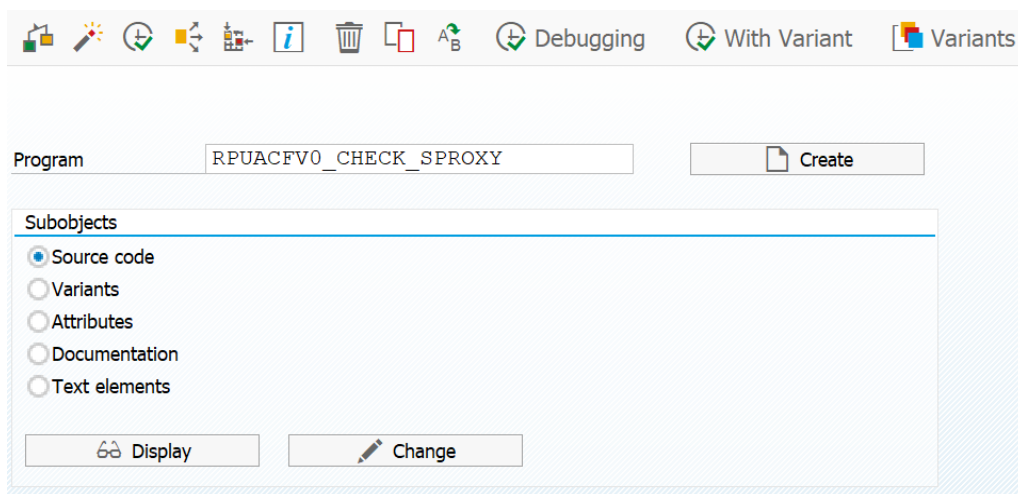
Integration Flow	Corresponding Report in Employee Central Payroll	Object Name	Port Name to be configured	URL access path	Comment
ArchiveCorrespondenceForEndUserSystemBasic	RPUACFVO_SAP GUI	CO_HRNO_AL2I CORRESPONDENCE_EXT	HRNO_AL2_ARC HIVECORRESPONDENCEFORENDUSERSYSTEM BASIC	/cxf/HCI/PAYROLL/NORWAY/ArchiveCorrespondenceForEndUserSystemBasic	Object names and port names for these Integration Flows remain the same every year. Therefore, you configure the proxies for these reports <b>once only</b> .
GetAltinnSubmissionStatusBasic	RPUACFVO_SAP GUI	CO_HRNO_AL2IINTERMEDIARY_INBOU	HRNO_AL2_GET ALTINNSUBMISSIONSTATUSBASIC	/cxf/PAYROLL/GetAltinnSubmissionStatusBasic	
GetAuthenticationChallenge	RPUACFVO_SAP GUI	CO_HRNO_AL2I SYSTEM_AUTHENTICAT	HRNO_AL2_GET AUTHENTICATIONCHALLENGE	/cxf/HCI/PAYROLL/NORWAY/GETAUTHENTICATIONCHALLENGE	
GetCorrespondenceForEndUserSystemsBasicV2	RPUACFVO_SAP GUI	CO_HRNO_AL2I CORRESPONDENCE_EXT	HRNO_AL2_GET CORRESPONDENCEFORENDUSERSYSTEMSBASICV2	/cxf/HCI/PAYROLL/NORWAY/GetCorrespondenceForEndUserSystemsBasicV2	
GetCorrespondenceListForReporteeBasic	RPUACFVO_SAP GUI	CO_HRNO_AL2I REPORTEE_ELEMENT_L	HRNO_AL2_GET CORRESPONDENCELISTFORREPORTEEBASIC	/cxf/HCI/PAYROLL/NORWAY/GetCorrespondenceListForReporteeBasic	
GetReceiptBasic	RPUACFVO_SAP GUI	CO_HRNO_AL2I RECEIPT_EXTERNAL_B	HRNO_AL2_GET RECEIPTBASIC	/cxf/HCI/PAYROLL/NORWAY/GetReceiptBasic	
SubmitFormTaskBasic	RPUACFVO_SAP GUI	CO_HRNO_AL2IINTERMEDIARY_INBOU	HRNO_AL2_SUBMITFORMTASK BASIC	/cxf/HCI/PAYROLL/SubmitFormTaskBasic	

# 4 Testing

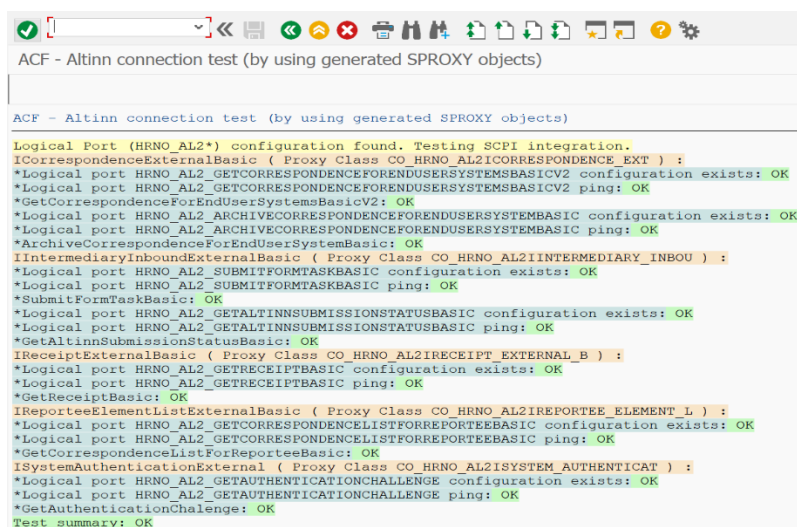
## 4.1 Testing outbound reports

Take the following steps to test the connection whether the Altinn Communication Framework (ACF) can access the Altinn web services through SAP NetWeaver Process Integration.

1. Go to transaction **SE38**.
2. Enter the report name **RPUACFV0\_CHECK\_SPROXY** and choose the Execute (F8) button.



Result: Altinn Communication Framework (ACF) can successfully access the Altinn web services through SAP NetWeaver Process Integration.

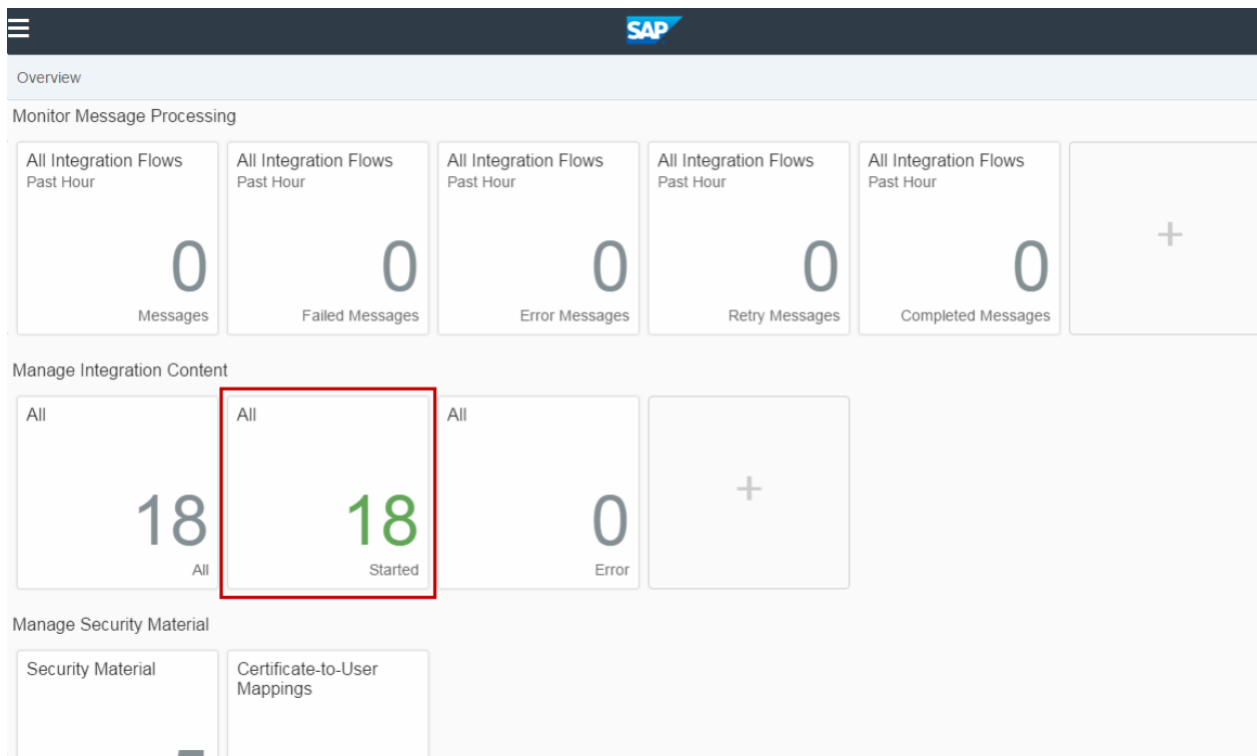


## 5 Appendix: Un-deploying and Deleting Integration Flows of Previous Year

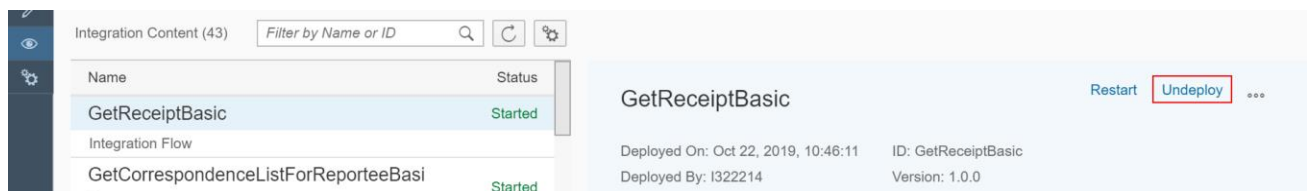
The Integration Flows in package *Altinn Communication Framework (ACF) Integration Package for Norway Payroll* may be needed to be updated or undeployed when required. Therefore, if you have already deployed these Integration Flows in the previous year, you must un-deploy the old Integration Flows before deploying the updated Integration Flows, and then delete the old Integration Flows.

### How do I un-deploy Integration Flows?

1. In your SCI tenant, choose *Monitor* from the menu in the upper left corner.
2. Under *Integration Content Monitor*, choose the *Started* tile.



3. Select the Integration Flow that you want to undeploy and then click *Undeploy*.



4. After the system un-deploys the Integration Flow, check that the number on the *Started* tile is reduced by one and the Integration Flow is no longer in the list of started artifacts.
5. Repeat the above steps to un-deploy each of the Integration Flows of the previous year.

## How do I delete Integration Flows?

Integration Flows cannot be deleted one by one. To delete the Integration Flows of the previous year, you must delete the package that contains these old Integration Flows.

1. In your SCI tenant, from the menu in the upper left corner, choose *Design*.
2. Click the package that contains the old Integration Flows (that is, the package with the year number of the previous year), and then select *Delete Package* in the lower left corner on the right panel.





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