SAP SuccessFactors Employee Central Integration with SAP Concur

Content
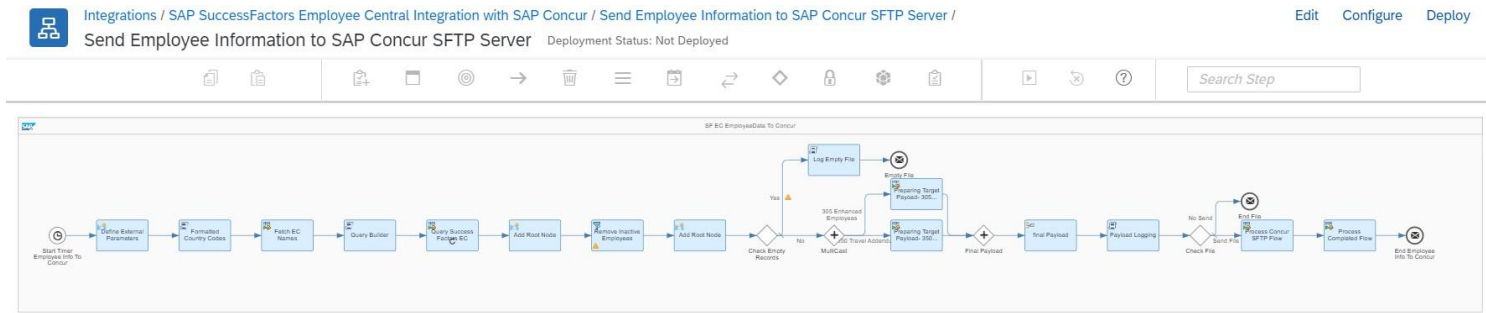
1 Prerequisites

The following are the prerequisites to use this integration flow:
- Access to Success Factors Employee Central
- SFTP access to SAP Concur

2 Documentation

Steps Used:

This is the main Integration Process flow. It contains the trigger point and is responsible for calling the individual local processes in sequence.

1. The interface is scheduled to run daily once using the timer event and full load.
2. The Local integration process Query Success Factors EC is invoked to retrieve employee data in loops. The records are fetched in batches based on the page size configured on receiver SF adapter.
3. Hence fetched records are concatenated and enveloped with root node for further processing.
4. Filter out the employees who are Active and Based on countries (company territory code).
5. Check for empty response from EC and end the flow if so
6. Sequential Multicast is to process request to 305 enhanced employee mapping and 350 Travel addendum mapping.
7. The local integration process - Prepare Target Payload is called in order to carry out the mapping and other modifications required by the target for 305 enhanced employee and 350 Travel addendum.
8. Join and Gather is helps to join the target payloads in sequential manner.
9. The local integration process – Sends final file to Concur S FTP
10. The flow is completed calling the Local integration process 'Process Completed Messages'. For logging success event in Execution manager dashboard
11. Any exceptions are caught using Local integration process 'Exception subprocess'.

Local Integration Flows:

1. Fetch EC Names
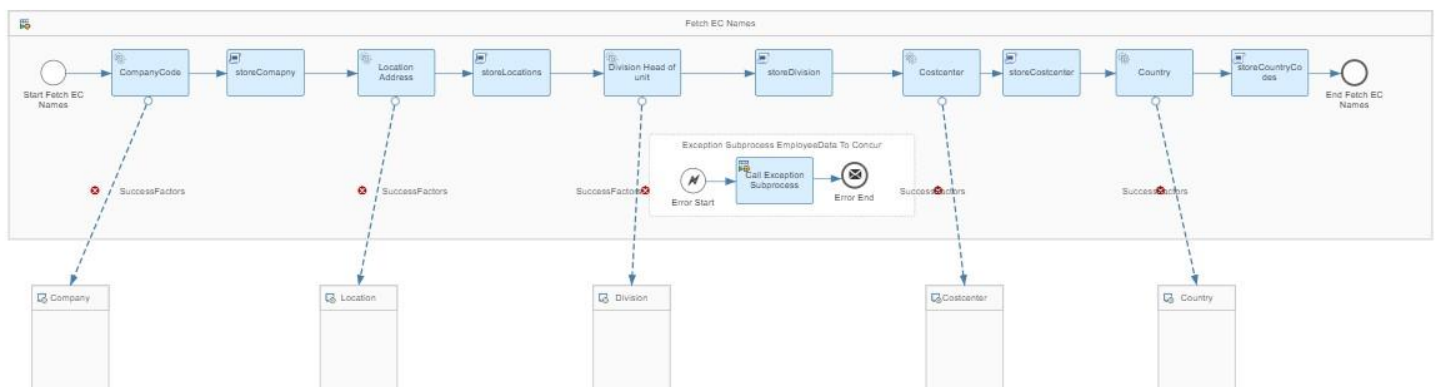
1. This local integration process is responsible for fetch the data from SF.
2. The following activities are carried out:

3. Request Reply – to fetch the company codes and currency using OData API.
4. Groovy script stores the EC External code with descriptions in HashMap.
5. Request Reply – to fetch the Location Address codes and currency using OData API
6. Groovy script stores the EC External code with descriptions in HashMap.
7. Request Reply – to fetch the Division codes and description using OData API **8.** Groovy script stores the EC External code with descriptions in HashMap.
9. Request Reply – to fetch the Cost center codes and External Id using OData API
10. Groovy script stores the EC External code with external ids in HashMap.
11. Request Reply – to fetch the Country codes and External Id using OData API
12. Groovy script stores the EC External code with external ids in HashMap.

2. Query Success Factors EC
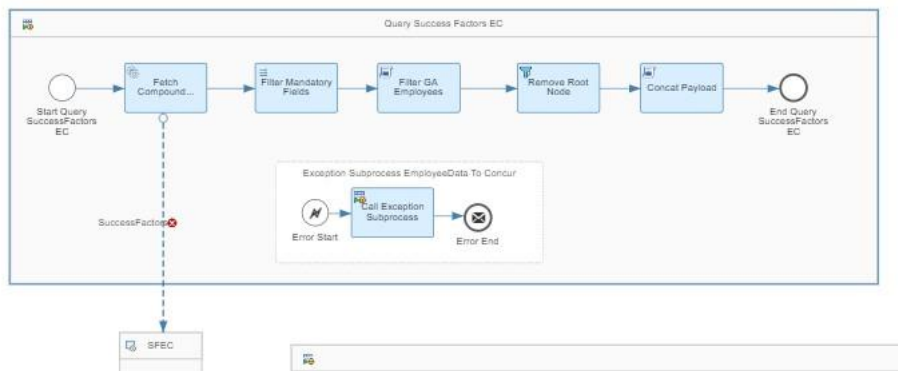
This looping local process is responsible for querying the employee information from Success Factors Employee Central based on the query which was built in the previous step. It concatenates the individual payloads and sends the data back to the main flow.

Loop condition: ${property.SFEC.SuccessFactors_Rcv_EmployeeData.hasMoreRecords} contains 'true'. Additionally, fields which are not required in message mapping at further step is being filtered using a message mapping and then Groovy Script is used to filter out employees on GA.
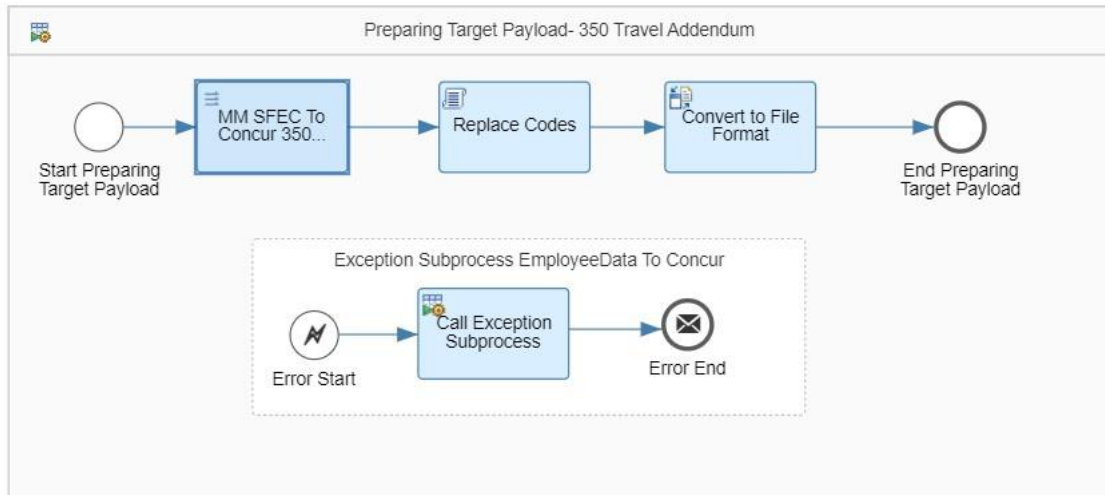
3. Preparing Target Payload 305 Enhanced Employees
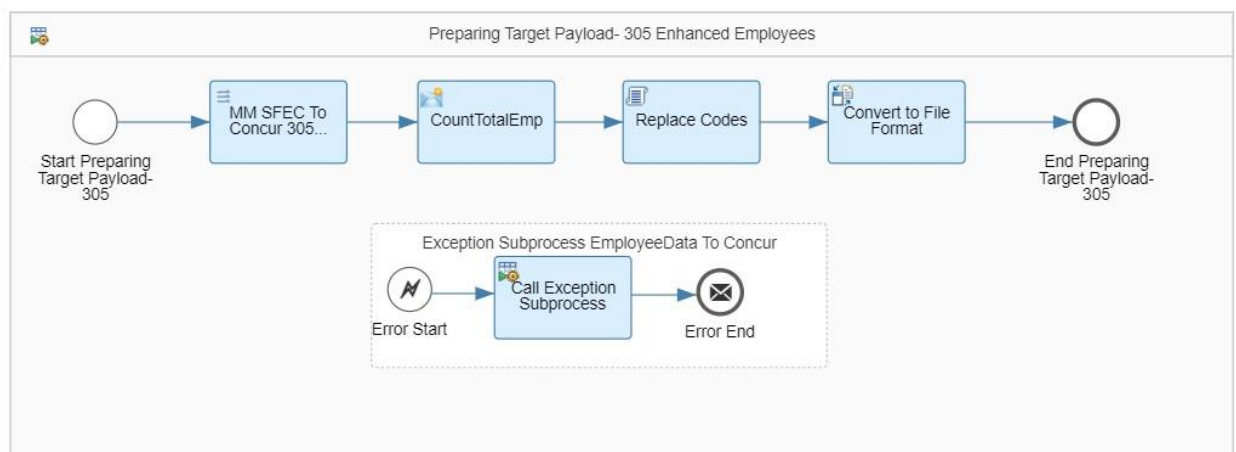
This local integration process is responsible for Transforming the data with respect to the concur 305 file structure. The following activities are carried out.

1. Message Mapping – to map the SF Soap output to the required File Format.
2. Content Modifier- to store the total number of employees I property.
3. Groovy script to replace the EC External code with descriptions.
4. Converter – to convert the XML structure to a comma delimited flat file structure.

4. Preparing Target Payload 350Travel Addendum

This local integration process is responsible for Transforming the data with respect to the concur 350 file structure. The following activities are carried out:
1. Message Mapping – to map the SF Soap output to the required File Format.
2. Groovy script to replace the EC External code with descriptions.
3. Converter – to convert the XML structure to a comma delimited flat file structure.

5. Concur SFTP Flow
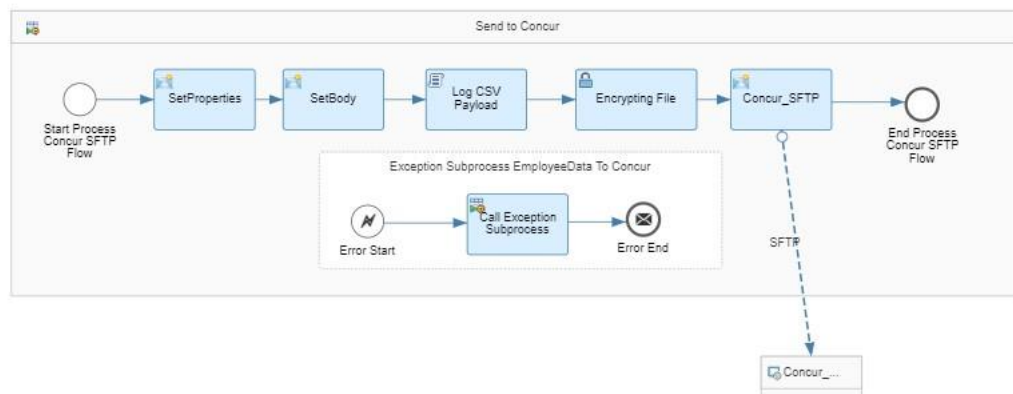
This local integration process is responsible for encrypting the final file and sending to concur SFTP server. The following activities are carried out before sending the data.
1. Content Modifier-TO read the input body and to store the file name as a property.
2.Groovy Script- Log the Payload received from SF. The payloads are logged appropriately based on Enable Logging external parameter and when trace level == 'DEBUG' or 'TRACE'.
3.PGP Encrypted- Encrypting final file with respect to the public key and secret.
4.Final file is sent to concur and placed in the SFTP folder.

6. Exception subprocess
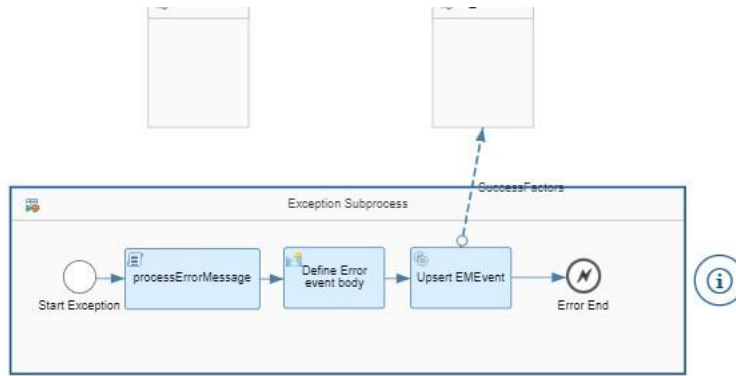
This local integration process is responsible for exception handling. Whenever the main integration flow fails, or one of the local flows fail, this integration process will be called.

This process prints the error message as a custom header log in the monitoring screen of CPI.

It then prints the list of failed employees in a flat file format as an attachment.

It also UPSERTs the error details into the execution manager of Success Factors Employee Central.

7. Complete Flow
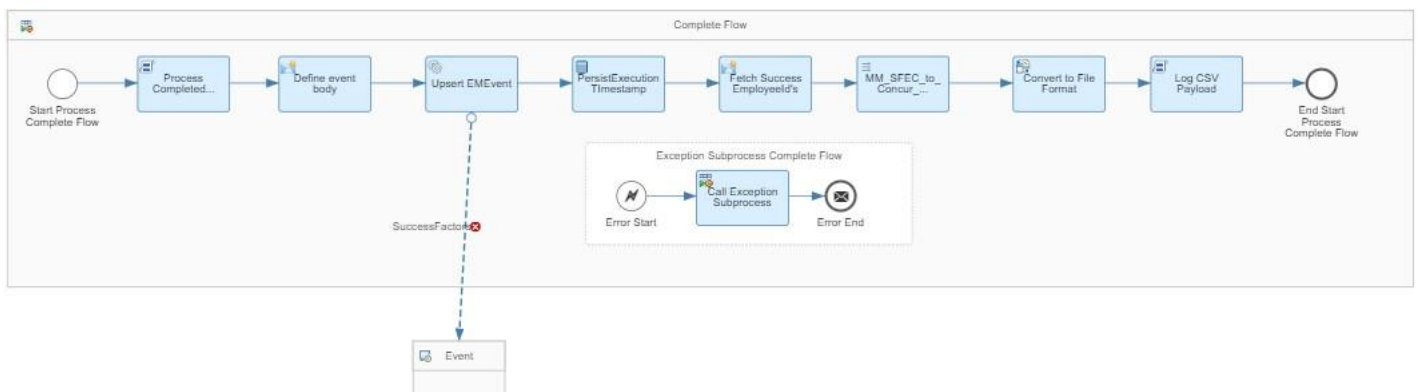
This local integration process is responsible for carrying out the following activities post successful completion of the main process flow:

1. Log the success status and a success message in the monitoring screen of SAP CPI.
2. UPSERTs the successful entry into the Execution Manager of SuccessFactors Employee Central.
3. Store execution timestamp in the global variable.
4. Store Employees list in a CSV file after processing.

3 Configuration steps in Cloud Integration

3.1 Configure Sender Adapter

System Name: SFEC

1. Address: Enter the URL for the Success Factors Employee Central system
2. Authentication: Enter the authentication mechanism: Basic/OAuth2 SAML Bearer Assertion
3. Credential Name: Enter the name of the deployed artifact which contains the Employee Central Credentials.
4. Page Size: Enter the desired page size of the payload which determines the no of records per page fetch. 5. Timeout: Maximum time system waits before the operation is terminated.

3.2 Configure Receiver Adapter

System Name: Concur

1. Directory: Enter the target directory in which the file is to be placed.
2. Address: Enter the SFTP address of the Concur server.
3. Authentication: Enter the authentication mechanism – public key/Username Password/Dual/Dynamic
4. Filename: Enter the filename convention as per requirement.
5. Username: Enter the username to be used for authentication.
6. Timeout: Enter the maximum waiting time for the SFTP adapter.
7. Maximum Reconnect Attempts: Maximum number of attempts allowed to reconnect to the SFTP server.

3.3 Configuring Additional Parameters

1. Company Territory Code: List of country codes separated by comma.
2. Enable Logging: Y if it's required to store payload else N.
3. Last Modified Date param: Manual execution date and time of interface.
4. Logical System: Logical system name (if not used then leave blank).
5. Send File: Y if file should be sent to Concur SFTP else N.
6. Value Mapping: T/Q/P – based on tenant environment.