

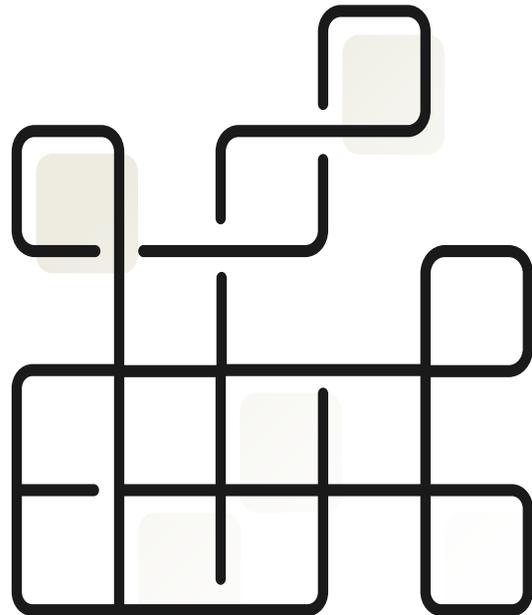


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# Integrating SAP SuccessFactors Employee Central with Alight Exchange

## Integration Guide

Version 5.0



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## Introduction

This integration guide helps Professional Services and SAP partner consultants to integrate SuccessFactors Employee Central with Alight hrX Exchange using SF EC Payroll Integration available in SAP Cloud Integration.

## Related documents

All related documents can be found in Alight [Help Center](#).

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# Table of Contents

<b>TABLE OF CONTENTS</b> .....	<b>3</b>
<b>1 INTRODUCTION</b> .....	<b>4</b>
<b>2 INTEGRATION OVERVIEW</b> .....	<b>4</b>
2.1 SUPPORTED SCENARIOS .....	4
2.2 UNSUPPORTED SCENARIOS .....	7
2.3 PREREQUISITES .....	8
<i>Employee Central</i> .....	8
<i>SAP Cloud Platform Integration</i> .....	8
<i>hrX Exchange</i> .....	8
2.4 TECHNICAL PROCESS FLOW .....	9
<b>3 STANDARD PACKAGE INTEGRATION</b> .....	<b>9</b>
3.1 PAYROLL BUSINESS PROCESS WITH HRX EXCHANGE.....	9
3.2 INTEGRATION SPECIFICATIONS.....	11
3.2.1 <i>Biographical Information</i> .....	12
3.2.2 <i>Personal Information</i> .....	12
3.2.3 <i>Address Information</i> .....	13
3.2.4 <i>Email Information</i> .....	13
3.2.5 <i>Phone Information</i> .....	14
3.2.6 <i>Employment Information</i> .....	14
3.2.7 <i>Job Information</i> .....	15
3.2.8 <i>Compensation Information</i> .....	17
3.2.9 <i>Payment Information</i> .....	21
3.2.10 <i>National ID Card</i> .....	22
3.2.11 <i>Work Location Address</i> .....	22
3.2.12 <i>Work Permit</i> .....	22
3.2.13 <i>Alternative Cost Distribution</i> .....	23
3.3 INTEGRATION KEY CONSIDERATIONS .....	23
<b>4 INTEGRATION PACKAGE</b> .....	<b>25</b>
4.1 SETTING UP SAP SUCCESSFACTORS EMPLOYEE CENTRAL INTEGRATION WITH ALIGHT – MAIN INTEGRATION FLOW .....	25
4.2 SAP SUCCESSFACTORS EMPLOYEE CENTRAL INTEGRATION WITH ALIGHT – VALUE MAPPING .....	28
4.3 HRX EXCHANGE CONFIGURATION .....	29
4.4 SWITCHING TO THE NEXT GEN INTEGRATION PACKAGE .....	29

# 1 Introduction

The SAP SuccessFactors Employee Central Integration with Third-Party Payroll Vendor - Alight is available as [an integration pack](#) in the customer's SAP Cloud Platform Integration account when the customer obtains Employee Central. This package supports outbound integration from Employee Central through the Compound Employee API in delta mode to query employee data to hrX Exchange and transforms the raw data to Exchange BOD. This standard package was initially developed and managed by SAP for Alight but after a transition period which includes on site KT the integration has been fully handover to Alight on April 2019.

This guide helps Professional Services and SAP partner consultants to integrate SuccessFactors Employee Central with the third-party payroll provider, Alight Solutions. Integration with Alight's hrX Exchange is done through a standard package available in API Hub. This is an out-of-box integration that requires no manual data mapping. This integration guide provides instructions that will assist in the process of integrating data from SuccessFactors Employee Central into hrX Exchange for payroll processing. It provides detail on the configuration and deployment of the package integration to the client's SCPI tenant.

## 2 Integration Overview

### 2.1 Supported scenarios

1. This package supports outbound integration from Employee Central to Alight for the following life cycle events:
  - a. Hire
  - b. Leave Of Absence and Return from Leave of Absence
  - c. Termination
  - d. Rehire
  - e. Transfer
  
2. Data changes on the following portlets:
  - a. Person Information
  - b. Personal Information
  - c. Email Information
  - d. Phone Information (enabled for Australia and China only)
  - e. Employment Information
  - f. Compensation Information
  - g. Pay Compensation: Recurring and non-recurring
  - h. Payment Information
  - i. National ID

- j. Work Location Address
  - k. Deduction: Recurring and non-recurring
  - l. Work Permit
  - m. Alternative Cost Distribution
3. Business processes
- a. Hire Date Change
    - i. The integration is able to support hire date correction feature ([KBA 2636395](#)) for future dated hire introduced in 1905 release.
    - ii. The integration is also able to support scenarios not supported by the feature ([KBA 2636395](#)) such as hire date correction for past dated hire. In this scenario it is recommended to [transact](#) the hire date change via modification of original hire record in job info history.
  - b. Hire Rescind
    - i. SuccessFactors delivered in Q4 2019 support for [no-show](#). The **Take Action > Report No-Shows** action is available only for a period of 30 days after the hire date of the employee. If a no-show is reported after the 30-day mark, that can be done in the **Job History** UI. The integration is now able to support this no-show in 16.0. The integration generates a DELETE bod for the hire created in Exchange and a ticket is automatically created in hrX Assist for downstream payroll manual action. Note that existing workaround for hire rescind to handle no-show using configured termination reason is no longer supported.

COMPANY GROUP	PAY GROUP	EMPLOYEE	EVENT	STATUS	SENT DATE	LAST MODIFIED
Electracom US	US001 X2 (X2)	Stephen Robertson (es200522021p / es200522021x)	*Hiring	WAITING TICKET RAISED	22/05/2020, 14:37	22/05/2020, 14:37

- c. Termination date change
  - i. When an employee is already terminated in Exchange and an action to change the termination date is performed in EC by editing existing job information record with termination event, the integration creates a *modified* BOD for a termination event.

COMPANY GROUP	PAY GROUP	EMPLOYEE	EVENT	STATUS	SENT DATE
YourCorp Germany	DE001 D2 (D2)	Sharukh Khan (E00007318 / 30115100)	Termination	CLOSED WITH WARNINGS	26/04/2019 05:34

**Termination for Sharukh Khan (E00007318): 26-Apr-2019**

Modified

**Employment Details**

Start Date: 11-Apr-2019 (Old Value: 04-Apr-2019)

Termination Date: 11-Apr-2019 (Old Value: 04-Apr-2019)

**Approver**

Start Date: 26-Apr-2019

Hris: DEALTO\_DESMGRONE

Approver Type: GENERAL

**Date Specifications**

Start Date: 26-Apr-2019 (Old Value: 05-Apr-2019)

d. Termination event reason change

- i. When an employee is already terminated in Exchange and an action to change the termination event reason is performed in EC by editing existing job information record with termination event, the integration creates a *modified* BOD for a termination event.

e. Revoke Termination

- i. When a termination already replicated in Exchange is cancelled in EC through deletion of the job information record with termination event, the integration creates a *delete* BOD in Exchange and a ticket is automatically created in hrX Assist for downstream payroll manual action. A separate *add* BOD is also created to correct date specification records.

f. Compensation event reason change. See [3.2.8](#).

4. Support SuccessFactors Employee Central delivered features/enhancements

a. Support hire for fixed term

- i. A new feature was added in the 1905 release which allows for the creation of fixed term contracts. This means that you can add the termination date and reason during the creation of the new employee. This is helpful when hiring interns, apprentices, and/or seasonal workers into Employee Central.
- ii. The standard package supports this feature by creating both the hire and termination (future dated) events in Exchange at the same time.

b. Support rehire with new employment

- i. This feature from Employee Central enforces new employment in case of a rehire. This means if a terminated employee changes from one legal entity to another, then Employee Central now requires a rehire with new employment rather than a job change.

- ii. The standard package supports this feature by creating a hire event in Exchange for the employee with the same PersonID but different EmployeeID.
- c. Support original hire date for rehire with new employment for [KBA 2080126](#)
  - i. When you Rehire Inactive employee with New Employment, the Original Start Date will not be same as old employment's Original Start Date. This is because the new employment will have new user id and original start date equal to the date of first Jobinfo record with Hire event.
  - ii. The standard package supports storing the original hire date using a custom\_date field in SuccessFactors Employee Central in employment information portlet.
  - iii. For further details see Section [3.2.6](#).

## 2.2 Unsupported scenarios

The following scenarios are out of scope for the standard package. However all of these limitations are all addressed in the new [package integration](#) delivered by Alight. This new integration package is available in API Hub in October 2019.

1. **Exchange's payroll specific grouping.** Through this feature the hrX Exchange-XML data model can support 10 generic payroll grouping fields that can be map to custom fields from SuccessFactors Employee Central as HRIS. This mapping can be used for customer payroll and post payroll requirement, finance, or reports.
2. **Field overrides.** This feature allows override of standard fields with custom fields as the source field for data. Currently the standard package support this but is not dynamic and is only limited to contract\_type, originalStartDate, and compensation event reason fields in SuccessFactors Employee Central.
3. **Top-of-the stack.** This is a known limitation of the package integration in which the Compound Employee API returns only the last changed record. So, in case of multiple job info changes on the same day, only the last record change is sent to hrX Exchange.
4. **Termination 1 day after hiring date.** Integration is not able to support this unusual scenario of having an employee active for 1 day only.  
Workaround: Raise a ticket to Alight via hrX Assist for this scenario.

## 2.3 Prerequisites

### Employee Central

- Perform changes to the Corporate Data Model to include **FOPayComponent** for three additional fields needed in the integration, **unit of measure**, **rate** and **number**. It is not needed to define pay component, employees will not see these fields when entering data for existing pay components. Instructions on making the changes are available in the [Employee Central Master Implementation Guide](#).
- For Employee Central API (SFAPI or/and OData) access, Employee Central system should be configured appropriately. Also, the user used in the Integration to access Employee Central, should have the appropriate privileges for accessing the data via OData/SFAPI. For more information, see SAP Help Portal for APIs at [https://help.sap.com/hr\\_api](https://help.sap.com/hr_api).
- This integration expects that the default fields for all the Foundation Objects used are always enabled:
  - FOCostCenter
  - FOPayComponent
  - FOPayGrade
  - FOLocation
  - Position
  - FODepartment
  - FOJobCode

### SAP Cloud Platform Integration

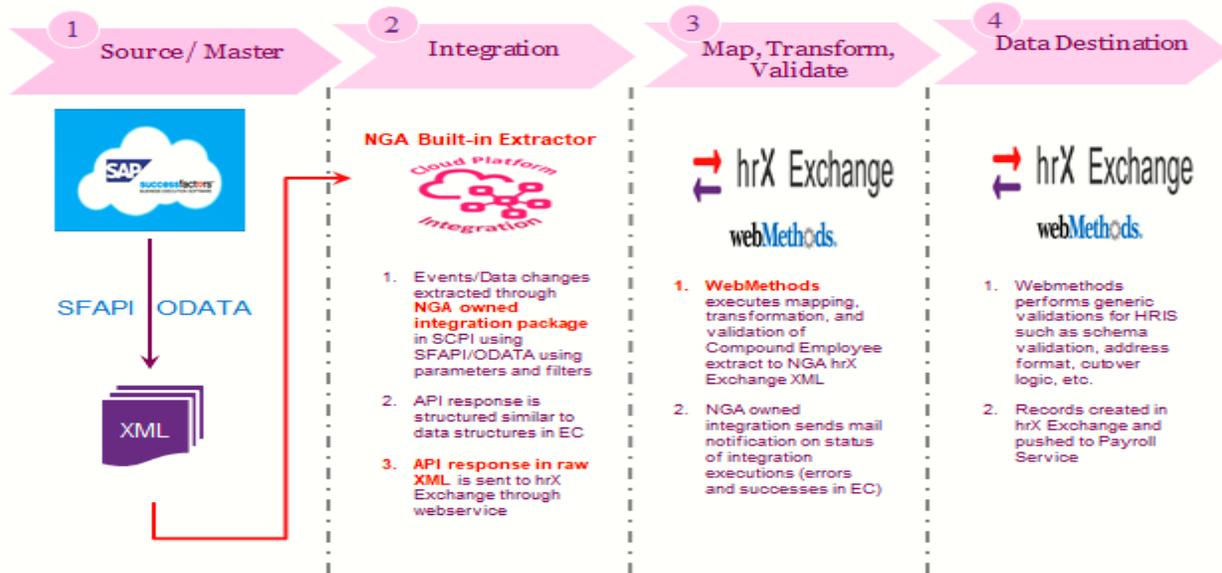
- The client must have an existing operational production and test SCPI tenants for integration with Alight.
- The consultant performing the configuration steps must be familiar with SCPI and with installation, execution and monitoring of packaged installations.

### hrX Exchange

- Customer onboarding to hrX Exchange. This is managed by Service Readiness professionals and application support team from Alight.

## 2.4 Technical Process Flow

The Standard Package integration is visualized below:



## 3 Standard Package Integration

### 3.1 Payroll Business Process with hrX Exchange

The integration process generates BODs only for those employees who have undergone a change in Employee Central since the last execution of the process. The changes in Employee Central are categorized as ADD, MODIFY, or DELETE on the hrX Exchange side. If there is an addition or modification to the data of an employee, a BOD with the action field set to ADD is generated. If any data for an employee is deleted, a BOD with the action field set to DELETE is generated. For hire and termination date change and pay element change, a BOD with the action field set to MODIFIED is generated. One BOD per action per employee is generated by the process. Each BOD can contain only one lifecycle event; this lifecycle event is sent to hrX Exchange only once. For example, if an employee is hired, the process generates a BOD for the Hire event. If the same employee undergoes a data modification, the process generates a BOD capturing the changes, but this BOD doesn't contain the Hire event because it was already sent to the provider initially. The integration supports the following lifecycle events:

- Hire
- Leave of Absence
- Return from Leave of Absence
- Termination

- **Rehire**

- Rehire in the same country and within the same legal entity. This is done in SuccessFactors Employee Central through the regular rehire.
- Rehire in the same country, but in a different legal entity. This is done in SuccessFactors Employee Central through rehire with new employment.
- Rehire in a different country. This is done in SuccessFactors Employee Central through rehire with new employment.
- For the above-mentioned cases, the process generates a BOD with the action ADD and containing the Rehire event. For rehire with new employment an employee is rehired into hrX Exchange with a different EmployeeID representing the new employment generated from SuccessFactors.
- Only data modifications after the rehire date are supported by this integration. For a rehired employee, any retro dated changes are not supported prior to the rehire date.

- **Transfer**

- *Change of legal entity within one employment*
  - Transfer in the same country and within the same legal entity. This is treated as a normal organizational change; the process generates a BOD with the action ADD and data capturing the transfer.
  - Transfer in the same country, but in a different legal entity
  - Transfer to a different country.
  - For transfers involving change in legal entity and country, the process generates two BODs. The first BOD is sent with the action ADD and includes the termination of the employee on the old job. The second BOD is sent with the action ADD and the lifecycle event as Transfer and contains only the data that is valid as on the date of transfer. For the process to identify that the transfer is across legal entities and to a different country, the customer needs to maintain special event reasons for the standard Employee Central Transfer event. The event reasons relevant for Transfer within a country and across legal entities and transfer between countries must be maintained as configuration parameters in Exchange.
- *New employment for change in legal entity*
  - In consideration of SuccessFactors enhancement from Q12019 enforcing of the new employment (ECT102408/ECT108303) which includes transfer, the integration is also able to handle when SuccessFactors system is set-up ([Optional: Prohibiting Change of Legal Entity in Any Employment](#)) so that it does not allow a change of legal entity within one employment.
  - When this feature is enabled to transfer an active employee, you must terminate first the employee in his old legal entity and transfer the same employee to the new legal entity through rehire with new employment.
  - The standard integration package can support the termination and rehire with new employment for transfer. It is also able to support regular transfer within the same employment as location transfer which flows as data change to hrX Exchange.

## 3.2 Integration Specifications

The replication of employee master data from Employee Central to hrX Exchange uses the compound employee service in delta mode from Employee Central. The Compound Employee API for Employee Central extracts the employee data from Employee Central. Delta transmission enables Employee Central to determine the changes that have occurred since a certain point in time. For this delta calculation, the consumer only needs to pass the timestamp of the last synchronization when calling the Compound Employee API. Based on this timestamp of the last synchronization, the Compound Employee API determines all modified employees.

These employees are contained in the API response, including information about which segments, and fields have modified. Delta transmission supports two alternative modes:

- The Compound Employee API response contains only the modified employee data with an action code that indicates how the data needs to be processed on the consumer side.
- The Compound Employee API returns all data including the unmodified segments that have the action code NO CHANGE.

### BOD Header

#### Derive Area Logical ID

The Area logical ID is compiled by concatenating GCC (obtained from parameter) and LCC (derived based on the company of the employee, using the Packaged ValueMapping - SF EC to Alight HR Local Customer Code configuration with a delimiter '-'). This is then followed by the string '-1001'.

#### Component ID

Obtain the component ID from the external parameter, ComponentId.

#### Creation Date Time

Obtain the current date time which is mapped as Creation Date Time.

#### BOD ID

BOD ID stands for Business Object Document id. This is a randomly generated Universally Unique Identifier (UUID).

The standard integration flow supported action codes are INSERT, CHANGE, DELETE, and NO CHANGE. It extracts records from the following portlets:

Portlet	Section
Biographical Information	3.2.1
Personal Information	3.2.2
Address Information	3.2.3

Contact Information (Email Info)	3.2.4
Contact Information (Phone Info)	3.2.5
Employment Information	3.2.6
Job Information	3.2.7
Compensation Information	3.2.8
Payment Information	3.2.9
National ID Card	3.2.10
Work Location Address	3.2.11
Work Permit	3.2.12
Alternative Cost Distribution	3.2.13

### 3.2.1 Biographical Information

The Employee Central fields (date, country, region, and place, and the employee identification number) from biographical information portlet are mapped to the Alight hrX Exchange XML.

### 3.2.2 Personal Information

The Employee Central fields such as birth name, marital status, gender, first name and last name, nationality, native prefer language etc. from personal information portlet are mapped to the Alight hrX Exchange XML.

#### Marital Status

These values are mapped via SF EC to Alight Marital Status. This Value Mapping must be filled by the consumer based on the picklist and the hrX Exchange values. Default mapping values are available.

#### Gender

These values are mapped via SF EC to Alight Gender. This Value Mapping must be filled by the consumer based on the picklist and the hrX Exchange values. Default mapping values are available.

#### Nationality

These values are mapped via SF EC to Alight Country ISO Codes. This Value Mapping translates the Employee Central ISO-3 country codes to hrX Exchange ISO-2 country codes. Default mapping values are available.

#### Name Prefix, Suffix, and Salutation

- hrX Exchange allowed values for name prefix are maintained in value mapping SF EC to Alight Prefix
- hrX Exchange allowed values for preferred salutation code are maintained in value mapping SF EC to Alight Salutation

- hrX Exchange allowed values for generation affix code are maintained in value mapping SF EC to Alight Generation Affix Code
- hrX Exchange allowed values for qualification affix code are maintained in value mapping SF EC to Alight Qualification Affix Code
- Default mapping values are available.

### Second Last Name

Second last name is a payroll required field for Spain and Mexico. The second last name field from Employee Central is map to hrX Exchange as `<hr:FamilyName primaryIndicator="false">`

### Native Preferred Language

Integration limits the length of this field to 2. This drives the local language to be use for extracting the text description for some of the job information fields. Ensure that the configured picklist for the native preferred language uses the SAP standard: `<language>_<country>` e.g., `pt_BR` for Brazilian Portuguese. This is needed as the translations for position and job title depends on the employee's selected native preferred language.

## 3.2.3 Address Information

The Employee Central fields from the address information portlet are mapped to the Alight hrX Exchange XML.

The integration maps the Employee Central home/ mailing address fields (address 1 to address12) to the address line sequence (1 to 12) in hrX Exchange by referencing the value mapping **Packaged ValueMapping - SF EC to Alight Address Mapping**. After which the address is formatted in Exchange based on the country specific standard address mapping for SuccessFactors Employee Central as HRIS. The possible outcomes of the address formatting in BOD:

- 1 Home/Mailing address section when Country Address Type = Basic
- 2 Home/Mailing address sections when Country Address Type = Extended

Note: The attribute `address1_alt1` maps to a sequence value of 13 in hrX Exchange

Integration through **Packaged ValueMapping - SF EC to Alight Additional Address Mapping** can interface configured address types from EC to Exchange for payroll service consumption. Though, the hrX Exchange UI still only supports the display of the home and mailing address types, the additional address types can be view in the BOD. This feature only works for euHReka as payroll service.

## 3.2.4 Email Information

The Employee Central fields for email from Contact Information portlet are mapped to the Alight hrX Exchange XML. Only email type = Business is interface.

Email Information is a non-effective-dated entity in Employee Central, and since hrX Exchange expects a validity date, this data is sent to hrX Exchange with **validFrom** as the current date and **validTo** as 9999-

12-31. In the case of a Hire scenario, the Hire Date is sent as validFrom, for a Transfer scenario the Transfer Date or Rehire with new employment date is sent as validFrom and for a Rehire scenario, the Rehire Date for regular rehire or the Rehire with new employment date is sent as validFrom.

### 3.2.5 Phone Information

The Employee Central fields (phone type, phone number, area code, country code, extension) for phone from Contact Information portlet are mapped to the Alight hrX Exchange XML. Only phone type = Home is interface.

Phone Information is a non-effective-dated entity in Employee Central, and since hrX Exchange expects a validity date, this data is sent to hrX Exchange with **validFrom** as the current date and **validTo** as 9999-12-31. In the case of a Hire scenario, the Hire Date is sent as validFrom, for a Transfer scenario the Transfer Date or Rehire with new employment date is sent as validFrom and for a Rehire scenario, the Rehire Date for regular rehire or the Rehire with new employment date is sent as validFrom.

### 3.2.6 Employment Information

The Employee Central fields (user\_id, original hire date, seniority date, service date, professional service date, salary end date) from Employment Information portlet are mapped to the Alight hrX Exchange XML.

#### Original Start Date

The integration checks maintenance in Packaged Value Mapping - SF EC to Alight Field Overrides to override the source for original start date. If there is an entry, then using the same value mapping it retrieves the value of the original start date from the defined custom field (custom\_date1 to custom\_date15) and map it to Original Hire Date in hrX Exchange. The custom field should be configured in SuccessFactors Manage Business Configuration. Sample entry for the value mapping below:

Configure Packaged ValueMapping - SF EC to NGA HR Field Overrides

Bi-Directional Mapping

Agency	Identifier	↔	Agency
EC	EC_Field	↔	NGA

Value Mappings
Default Values

Value Mappings for Search Add

EC, EC_Field	↔	NGA, NGA_Field
original_start_date	↔	custom_date1

If no maintenance like above is defined, then integration uses the field originalStartDate and map it to Original Hire Date in hrX Exchange for hire event.

### 3.2.7 Job Information

The Employee Central fields (employee class, employment type, position, event reason, location, job code, work schedule, FTE, company, cost center, pay scales, manager ID, etc) from Job information portlet are mapped to the Alight hrX Exchange XML.

#### Cost Center

By default, the hrX Exchange field (CostCenterCode) is mapped with the external code of the Cost Center from Employee Central. When the external configuration switch (Cost Center- External Object ID) is enabled (set to 1) in the parameter in the integration package iflow then the hrX Exchange field (CostCenterCode) is mapped with the external object ID of the cost center which is fetched from the Foundation Object (FO Cost Center).

#### Local language text

This integration sends the values for the following fields (part of Entity Personal Information) in the native preferred language of the employee

- Department Name (FODepartment)
- Job Title (FOJobCode)
- Position Title (Position)

The translated field values are obtained from their corresponding foundation objects. For a Foundation Object, if the translated value is not maintained or if the native preferred language itself is not maintained for the employee, then the default value from the corresponding foundation object is sent across to hrX Exchange.

#### Job Title

The Alight hrX Exchange field 'JobTitle' is derived from the field 'name' maintained against a job\_code in Employee Central foundation object JobCode. Based on the native\_preferred\_language of the employee, the appropriate language based 'name' field will be used to derive the Alight hrX Exchange field 'JobTitle'.

#### Determine Lifecycle Event

This function uses the following fields:

- event\_reason
- start\_date
- event
- created\_on
- employment\_information/salary\_end\_date
- employment\_information/originalStartDate

The field <created\_on> is used to determine if the event is being sent for the first time. Based on the field <event>, the appropriate hrX Exchange fields are populated. If the event is Hire, the field originalStartDate is mapped to originalHireDate in BOD. If the event is Termination, the field <salary\_end\_date> is sent to hrX Exchange and mapped to field LastPaidDate.in BOD.

### Termination Date

The termination date sent to Alight is the employee's last day being active in Employee Central.

### Employee Class and Employment Type

These two fields are concatenated with a delimiter '-'.

### Payscale Information

This function uses the following fields:

- Start Date
- End Date
- payScaleArea
- payScaleType
- payScaleGroup
- payScaleLevel
- payGrade

This function validates if the pay scale information is available from EC and only then maps them to the Alight XML. This is to avoid blind mapping of Job Start and End dates. It is required to concatenate payScaleArea with payScaleType.

Also, if the payScaleLevel is maintained in the job record, then this value is map to BOD, otherwise the corresponding payGradeLevel maintained for a payGrade in the foundation object, FOPayGrade is map to BOD.

### Contract Type

This function has the Employee Central contract\_type value mapped to the corresponding ContractType field added in the following XPath in Alight:

ProcessPayServ/ProcessPayServEmp/DataArea/PayServEmpExtension/ ContractElements/.

If you configure the contract\_type value to one of the first 15 custom string fields of job information portlet in Employee Central, then it is required that you specify the API/technical name of the custom string field in the cross reference table "**SF EC to Alight Field Overrides**" for the value to be picked and mapped to the corresponding ContractType field of Alight. If no custom string field is provided in the "Override Standard EC Field (s)" cross reference table then the contract\_type value is picked from the standard Employee Central field and mapped to the corresponding ContractType field of Alight. In this scenario both the systems "EC" and hrX Exchange" have to be synchronized with the Contract Type code values.

A new value mapping for contract type is introduced to map contract type from SuccessFactors to Exchange.

### Event Reason in Alternate Description Mapping

The following table lists out the Employee Central events mapped to the respective Alight Description types:

Employee Central event	Alight Description Type
Hire	HireReason
Termination	TerminationReason
Pay Rate Change and changes to compensation info portlet	CompensationChangeReason
Transfer, Data Change, Demotion, Job Change, Job Reclassification, Position Change, Promotion, Global Assignment (Start and End)	WorkConditionReason

### 3.2.8 Compensation Information

#### Compensation Change Reason

To enable the interfacing of compensation event reason from SuccessFactors Employee Central to hrX Exchange, feature CompensationChangeReason needs to be maintained for the EC company code in Employee Central e.g., for Brazil. See sample maintenance below of the value mapping, **SF EC to Alight Feature**.

#### Configure Packaged ValueMapping - SF EC to NGA HR Feature

Once the feature is activated, integration by default uses the compensation event reason field as the source field for the compensation change reason. Otherwise, customer can define the source field from custom string fields (custom\_string1 to custom\_string15) using **SF EC to Alight Field Overrides**.



... / Configure Packaged ValueMapping - SF EC to NGA HR Field Overrides /

## Configure Packaged ValueMapping - SF EC to NGA HR Field Overrides

### Bi-Directional Mapping

Agency	Identifier	↔	Agency
EC	EC_Field	↔	NGA
comp_event_reason		↔	custom_string15

### Pay Compensation and Deduction Portlets (Recurring and Non-Recurring)

The EC-hrX Exchange interface sends the pay component, amount, unit, number, rate, currency to hrX Exchange and Payroll Services. The frequency is not passed to hrX Exchange/PS. The frequency of a pay element is defined in the payroll engine and is not dynamic. As such, the integration of frequency is not possible by design. To ensure correct calculations in both EC and Payroll Service, the frequency of the pay element must be identical in both systems.

The customer should replicate in EC the pay components that are required in the payroll service. There are 3 types of pay component Amount, Percentage and Number. Depending of the type and other characteristics, the interface does not send the same data. See below the summary:

#### *Pay Component Amount:*

if the "Calculated Amount" field in Employee Central exists then the "Calculated Amount" field is used to map to the Alight field Amount otherwise the "paycompvalue " field is used to map to the Alight field "Amount"

#### *Pay Component Percentage:*

- If the pay\_component is not maintained in the lookup table (value mapping **SF EC to Alight Percentage Pay Component – Exceptions**) and the "calculatedamount" field in Employee Central exists, then the "calculated amount" field is used to map to the Alight fieldAmount.
- If the pay\_component is not maintained in the lookup table (**SF EC to Alight Percentage Pay Component – Exceptions**) and the "calculated amount" field in Employee Central does not exist, then the "paycompvalue" field is used to map to the Alight field Amount.
- If the pay\_component is maintained in the lookup table (**SF EC to Alight Percentage Pay Component – Exceptions**) then the "paycompvalue " field is used to map to the Alight field "Units".Also, the Alight field "Unit Type" is "PERCENT"

**Pay Component Number:**

It sends the number of units and the unit of measure and calculates the rate. Unit of measures in EC needs to be mapped to units in hrX Exchange using the relevant lookup table (value mapping **SF EC to Alight UOM**).

**Example:**

We have 4 pay components set up in EC as follow:

- 1000A type Amount
- 1000B type Percentage for which we want the amount
- 1000C type Percentage for which we want the percentage, so it is maintained in the exception table
- 1000D type Number with rate 24 and unit HOURS

The interface will not send the same thing for the pay component 1000B depending on if the field calculated amount is enabled or not.

If the field calculated amount is enabled in EC:

Compensation Information						
Effective as of Mar 3, 2017						
Pay Type: No Selection						
Notes						
Pay Group: Z03-US002 (X1)						
Is Eligible For Benefit: No						
Is Eligible For Car: No						
Benefits Rate: 0						
Compa Ratio						
Range Penetration						
▼ Compensation						
Pay Component	Amount	Currency	Frequency	Number	Unit of Measure	Calculated Amount
1000A (1000A)	100,000	USD	Annual (ANN)			100,000
1000B (1000B)	5%	USD	Annual (ANN)			5,000
1000C (1000C)	20%	USD	Annual (ANN)			20,000
1000D (1000D)	96	USD	Monthly (MON)	4	HOURS (HOU)	96
Pay Targets						
No data for Pay Targets available or you do not have the necessary permission.						

The following is sent to hrX Exchange:

Pay Elements									
Recurring Payments									
Id	Start Date	End Date	Amount	Rate	Units	Unit Type	Currency	Ref No.	Cost Center
1000A	03-Mar-2017		100,000.00				USD		
1000B	03-Mar-2017		5,000.00				USD		
1000C	03-Mar-2017				20.0	PERCENT	USD		
1000D	03-Mar-2017			24	4.0	HOURS			

If the field calculated amount is disable in EC:

**Compensation Information** History ?

Effective as of Mar 2, 2017

Pay Type: No Selection  
Notes: Z03-US002 (X1)  
Pay Group: Z03-US002 (X1)  
Is Eligible For Benefit: No  
Is Eligible For Car Benefits Rate: 0  
Compa Ratio: 0  
Range Penetration: 0

Pay Component	Amount	Currency	Frequency	Number	Unit of Measure
1000A (1000A)	51,000	USD	Annual (ANN)		
1000B (1000B)	3%	USD	Annual (ANN)		
1000D (1000D)	96	USD	Monthly (MON)	4	HOURS (HOU)
1000C (1000C)	4%	USD	Annual (ANN)		

**Pay Targets**  
No data for Pay Targets available or you do not have the necessary permission.

The following is sent to hrX Exchange:

**Pay Elements**

**Recurring Payments**

Id	Start Date	End Date	Amount	Rate	Units	Unit Type	Currency	Ref No.	Cost Center
1000A	02-Mar-2017		51,000.00				USD		
1000B	02-Mar-2017		3.00				USD		
1000D	02-Mar-2017			24	4.0	HOURS			
1000C	02-Mar-2017				4.0	PERCENT	USD		

Make sure that the pay component for which you want the percentage is in the cross-reference table:

Cross Reference:

Override:

Import from CSV

Percentage Pay Component Code	Description
1000C	

Make sure that your units are mapped in the cross-reference table:

Cross Reference:

Override:

Import from CSV

EC Unit Of Measure	hrX Exchange Unit Of Measure	Description
HOU	HOURS	Number of Hours
	MINUTES	Number of Minutes
	DAYS	Number of Days
	WEEKS	Number of weeks
	MONTHS	Number of Months

if you are using the Pay Components of type Number. Ensure that you enter 0 as the value if you are not using the Pay Components of type Number.

### 3.2.9 Payment Information

The Payment Information data will only be supported if the pay type is either 'MAIN' or 'PAYROLL'. Other pay types are not supported in this Integration.

For example, the 3 following pay types in EC:

Payment Information

**\* Pay Type** **Main Payment Method**

Customized Pay Type

\* Payment Method **Bank Transfer (05)** [E]

Bank Country **United States (USA)** [E]

Payment Information Detail USA

Account Type

Checking

Bank

Account Owner **Jeremy Mo**

Account Type (USA) **Checking**

Routing Number **063216608**

Account Number **1234567890**

Business Identifier Code

IBAN

Currency **USD (USD)** [E]

**\* Pay Type** **Payroll**

Customized Pay Type

\* Payment Method **Bank Transfer (05)** [E]

Bank Country **United States (USA)** [E]

Payment Information Detail USA

Account Type

Checking

Bank

Account Owner **Jeremy Mo**

Account Type (USA) **Checking**

Routing Number **063216608**

Account Number **2345678901**

Business Identifier Code

IBAN

Amount **1,000**

Percent

Currency **USD (USD)** [E]

---

**\* Pay Type** **Payroll**

Customized Pay Type

\* Payment Method **Bank Transfer (05)** [E]

Bank Country **United States (USA)** [E]

Payment Information Detail USA

Account Type

Checking

Bank

Account Owner **Jeremy Mo**

Account Type (USA) **Checking**

Routing Number

Account Number **3456789012**

Business Identifier Code

IBAN

Amount

Percent **10**

Currency **USD (USD)** [E]

Are reflected in hrX Exchange as follow:

Payment Instructions																		
Payment Details																		
Start Date	End Date	Payment Type	Local Payment Type	Payment Type Code	Payment Method	Amount	Percentage	Basis Code	Account	Type Code	Name On Account	Additional Account	Iban	Country Code	Currency Code	Field Name	Scheme	Value
08-Mar-2017		MAIN			BANK_DOM				1234567890	CHECKING	Jeremy Mo			US	USD	Bank routing		063216608
08-Mar-2017		OTHER		Amount	BANK_DOM	1,000.00			2345678901	CHECKING	Jeremy Mo			US	USD	Bank routing		063216608
08-Mar-2017		OTHER		Percentage	BANK_DOM		10.0		3456789012	CHECKING	Jeremy Mo			US	USD			

### 3.2.10 National ID Card

Since National ID Information is a non-effective-dated entity in Employee Central, and hrX Exchange expects a validity for it, this data is sent to hrX Exchange with validFrom as the current date and validTo as 9999-12-31 In the case of a Hire scenario, the Hire Date is sent as validFrom, for a Transfer scenario the Transfer Date is sent as validFrom and for a Rehire scenario, the Rehire Date is sent as validFrom

The National ID information is sent based on the country to which the employee belongs. For example, if an employee belongs to the country USA, and national ID information is maintained for USA and DEU, only the National ID information for USA is sent to hrX Exchange. For National ID integration ensure that maintenance is done in **Packaged ValueMapping - SF EC to Alight National ID**.

### 3.2.11 Work Location Address

#### Map Work Location Address

This function maps the work location address. If the value of the location field is not in the form XXX\_HOME (XXX being the three-digit country code), the address for that location in foundation object SFOData.FOLocation is picked up as the work location address. The work location address is mapped only if either the employee is newly hired, or the location has been modified for that employee.

### 3.2.12 Work Permit

Since Personal Documents Information is a non-effective-dated entity in Employee Central, and hrX Exchange expects a validity for it, this data is sent to hrX Exchange with *validFrom* as the current date and *validTo* as 9999-12-31 In the case of a Hire scenario, the Hire Date is sent as *validFrom*, for a Transfer scenario the Transfer Date is sent as *validFrom* and for a Rehire scenario, the Rehire Date is sent as *validFrom*. For work permit integration ensure that maintenance are done in **Packaged ValueMapping - SF EC to Alight Personal Document Type**.

### 3.2.13 Alternative Cost Distribution

Cost Center field in Employment Info Job Information gets overridden when alternate cost distribution is used.

## 3.3 Integration Key Considerations

- Integration supports processing of maximum 5000 records at a time. If there is a need to process more than 5000 records, then we recommend you split the payload using one of the available filters and then run the split data set individually.
  - Example: In the external parameters we have the following four filters to be used:
    1. Location
    2. BusinessUnit
    3. EmployeeClass
    4. CompanyThese filters are all comma delimited. Hence, we can use these filters to limit out the number of records at a time.
- When the PersonIdExternal filter is applied, and the integration is triggered then the Last Execution time stamp value will not be updated.
- We recommend that you use PersonIdExternal filter only for debugging or for on demand employee replication to hrX Exchange.
- This integration works on every job event information section and checks for multiple events on the same day. If there is a life-cycle event added for an employee, and if there are multiple other job events added in the job information on the same day, then the integration sends the latest job information with the life-cycle event. This way, there is no data loss or lifecycle event miss. For instance, if an employee is hired on 18th March 2019, and if a new Job Title event is added for that employee on the same day, then the integration sends the Hire event information along with the latest job information, which includes the new job title.
- For the following fields, the code values maintained in Employee Central have to be sent to hrX Exchange. They are then mapped to hrX Exchange specific values in the hrX Exchange system.
  - Company
  - Location
  - Pay Group
  - Cost Center
  - Pay Component

- After an employee is hired in Employee Central and replicated in hrX Exchange (hrX Exchange), if there is a further change to the hire date of the employee, then a MODIFIED BOD is generated capturing the change in the hire date of the employee.
- After an employee is terminated in Employee Central and replicated in hrX Exchange (hrX Exchange), if there is a further change to the termination date of the employee, then a MODIFIED BOD is generated capturing the change in the Termination Date of the employee along with the Last Paid Date. Ensure that when you change the Termination Date of an employee, you also change the Salary End Date in Employee Central to keep the Last Paid Date aligned with the Termination Date.
- A terminated employee who is already replicated in hrX Exchange (hrX Exchange) and if the termination is DELETED in Employee Central, then a DELETE BOD is generated capturing the termination event details.
- Ensure that you create separate pay components for payments and deductions in Employee Central for the hrX Exchange system to differentiate payments from deductions.
- It is recommended that when you run this integration on the SAP Cloud Platform integration, you set the frequency to less than 15 minutes. A low frequency time helps in avoiding overloading the system and reduced performance issues.
- After an employee is hired in Employee Central, an additional job record is created and this integration is triggered, then the HIRE BOD will have the field IndicativeDeployment/validTo set to 9999-12-31. Initially, this field was set to the end date reflecting the validity of the first hire job record.
- For Foundation Objects Position, FODepartment and FOJobCode, this integration performs on demand queries just before the employee data is mapped to the target structure and it does not hold the entire data of objects in-memory.
- When the process is executed for the first time, no data is fetched, and no BODs are generated. This is because the process always reads data for all changes made to the employee data between the last execution of the process and the current execution date/time. Since the last execution timestamp for the first execution is blank, it is set to current date.
- Any employee data in Employee Central prior to setting up this integration must be manually updated in hrX Exchange (data migration activity). After you have set up the integration, newly created data and modified data are sent to hrX Exchange via the integration. The integration is not intended to be use for migrating existing data from EC to hrX Exchange.
- While scheduling this integration you must ensure that mass updates are not taking place in the system. If so, then there could be following impacts:
  1. Data Loss
  2. Duplicates

## 4 Integration Package

### 4.1 Setting up SAP SuccessFactors Employee Central Integration with Alight – Main Integration Flow

**Procedure:**

1. Launch the Web application by accessing the URL provided by SAP.
2. Click  Discover.
3. Find **SAP SuccessFactors Employee Central Integration with Third-Party Payroll Vendor - Alight**. Click **Copy to Workspace** to copy **SAP SuccessFactors Employee Central Integration with Third-Party Payroll Vendor - Alight** package to your workspace.
4. Click  **Design > SAP SuccessFactors Employee Central Integration with Third-Party Payroll Vendor - Alight > Artifacts**. A page with the following artifacts is displayed:

#### Integration Flows

- Package Integration - SF EC to Alight hrX Exchange (Main integration flow)
  - Package Integration - SF EC Snapshot based integration to hrX Exchange
  - Packaged Integration - SF EC Event Driven via ISC to Alight hrX Exchange
  - Packaged Integration - SF EC Global Assignment to Alight hrX Exchange
  - Packaged Integration - SF EC Global Assignment via ISC to Alight hrX Exchange
  - Packaged Integration - SF EC Local Fields to Alight hrX Exchange
  - Packaged Integration - SF EC Time-off to Alight hrX Exchange Package
5. Click Package Integration - **SF EC to Alight hrX Exchange > Actions > Configure**. A page with the following tabs is displayed:
    - Timer
    - Receiver
    - Parameters
  6. Click the *Timer* tab. On this tab, you can schedule the integration based on the required business needs. The following three options are available:
    - Run Once
    - Schedule on Day
    - Schedule to Recur

When testing the integration, it is recommended that you choose the Run Once option.

7. Click the **Receiver** and **More (parameters)** tab.

## Receiver Settings

### Compound Employee

This receiver helps you to connect to Employee Central.

Field	Description
Address	Employee Central URL, for example, <a href="https://test.successfactors.com">https://test.successfactors.com</a>
Credential Name	Name of artifact that was deployed in

### Alight EndPoint

This receiver helps you to connect to hrX Exchange Web Service End Point.

Field	Description
Address	Alight HR End Point URL.
Credential Name	Deployed credential name that has the username and password for the Alight Web Service Connection

### MailServer

This receiver helps you to connect to SMTP Mail Server.

Field	Description
Adapter Type	By default, the Adapter Type is <b>Mail</b> .
Address	Mail Server URL.
Protection	Select from the drop-down, the method to establish an encrypted (Secure) connection.
Authentication	By default, the Authentication Type is "None". You can select the appropriate Authentication Type from the drop down.
Credential Name	Enter the credentials for this mail server, if the Authentication Type is "plain User/Password".
From	The From address of the mail server.
To	The address of the recipient of the emails generated by the process.

## Parameters

These parameters contain customizing options. To configure the parameters, you can override the default values.

Parameter Name	Description
LastModifiedOn	In this dynamic process property, provide a time stamp value in the format yyyy-mm-ddThh:mm:ss.sssZ (for example, 2015-01-01T00:00:00.000Z) for the first ever execution of the process. The process then fetches the changes in the Employee Central system as of the provided time stamp value. <b>Note</b> The “LastModifiedOn” must be specified only for the first run of the integration. For any subsequent run, the “LastModifiedOn” must be left blank and the current time stamp value will automatically be picked internally by the integration flow. Also, If you want to replicate a particular scenario from the past, you can specify that time stamp as the “LastModifiedOn” value to reproduce the scenario.
Company	Comma-delimited list filter (no blank spaces before/after comma) for specifying the companies to include in the extract.
EmployeeClass	Comma-delimited list filter (no blank spaces before/after comma) for specifying the employee classes to include in the extract.
Event Driven	1 means EDI is configured in ISC and hire, termination, and rehire events are triggered via ISC and created in hrX Exchange in real time. When this parameter is enabled, standard package suppress processing of these events to avoid sending duplicate events in Exchange 0 or blank means EDI is not configured. EDI events like hire, termination, and rehire are process by the regular run of standard package.
BusinessUnit	Include the foundation object externalCode if you want to include only employees associated with that foundation object.
Location	Include the foundation object externalCode if you want to include only employees associated with that foundation object.
Pay Component Filter for UnitType	Define pay components to send both amount and units.
PersonIdExternal	Comma-delimited list filter (no blank spaces before/after comma) for specifying the person_id externals to include in the extract.
Pay Group	Comma-delimited list filter (no blank spaces before/after comma) for specifying the pay groups to include in the extract.
Pay Components – Number	Enter 1 if the Employee Central system has Pay Components of type Number enabled, else enter 0.
RemoveOutScopeEmployment	Enter 1 if the Out of Scope Company will be ignore if not maintained in LCC Value Mapping else 0

Parameter Name	Description
Cost Center - External Object ID	Enter 1 to send the Cost Center's External Object ID to hrX Exchange, or enter 0 to send the external code of the Cost Center.
IsEmailEnabled	Enter 1 to enable mail, else enter 0.
GCC	Enter the Global Customer Code.
ComponentId	Maintain the Company ID of the Employee Central Instance.
TransferEventReasonCode-IntraCountry	Specify the Event Reason code configured for Transfers across Legal Entities which are within the same Country.
TransferEventReasonCode-International	Specify the Event Reason code configured for Transfers across Countries.

8. Save the configuration details.
9. Click **Back** to go to the catalog page listing all the artifacts.
10. Deploy the catalog by selecting **Actions > Deploy**.

## 4.2 SAP SuccessFactors Employee Central Integration with Alight – Value Mapping

- Packaged ValueMapping - SF EC to ALIGHT Additional Address Mapping
- Packaged ValueMapping - SF EC to ALIGHT Address Mapping
- Packaged ValueMapping - SF EC to ALIGHT Concurrent Employment Mode
- Packaged ValueMapping - SF EC to ALIGHT Country ISO Codes
- Packaged ValueMapping - SF EC to ALIGHT Feature
- Packaged ValueMapping - SF EC to ALIGHT Field Override
- Packaged ValueMapping - SF EC to ALIGHT Gender
- Packaged ValueMapping - SF EC to ALIGHT Generation Affix Code
- Packaged ValueMapping - SF EC to ALIGHT Local Customer Code
- Packaged ValueMapping - SF EC to ALIGHT Marital Status
- Packaged ValueMapping - SF EC to ALIGHT National ID
- Packaged ValueMapping - SF EC to ALIGHT Pay Group Mapping
- Packaged ValueMapping - SF EC to ALIGHT Payment Method
- Packaged ValueMapping - SF EC to ALIGHT Percentage Pay Component – Exceptions
- Packaged ValueMapping - SF EC to ALIGHT Personal Document Type
- Packaged ValueMapping - SF EC to ALIGHT Prefix
- Packaged ValueMapping - SF EC to ALIGHT Qualification Affix Code
- Packaged ValueMapping - SF EC to ALIGHT Salutation
- Packaged ValueMapping - SF EC to ALIGHT UOM
- Packaged ValueMapping - SF EC to ALIGHT Contract Type

## 4.3 hrX Exchange Configuration

Configuration will also be required on the hrX Exchange system for EC-Exchange Integration to work correctly specifically for mapping EC values to hrX Exchange. Any required configuration will be completed by the Alight project support team.

## 4.4 Switching to the Next Gen Integration package

Customer is able to upgrade to the new integration package, <https://api.sap.com/package/SAPSuccessFactorsEmployeeCentralIntegration2.0withThirdPartyPayrollVendorNGAHR?section=Overview> which is able to support key features such as payroll specific groupings, dynamic field override and future road map. This can be achieved by following the [integration guide](#).