



Employee Central to Exchange

Integration Guide for Delta/Standard interface

Version 16.7

Document Control

Document ID	Implementation Guide SAP SuccessFactors – Exchange - Integration
Document Owner	Product Cloud Integrations Team
Distribution	Strada Enterprise Products Community + SuccessFactors clients (signed and RFP/RFI)
Issue Date	February 2026
Last Saved Date	February 2026

Version Control

Version	Description	Release Date
15.0	Restructured document	February 2024
15.1	Updates for April 2024 Exchange Release on Contingent Worker	April 2024
15.2	Additional guideline on doing mass import when mass load feature is activated	May 2024
15.3	Add OFF_CW to Feature to turn off Work Order	May 2024
16.0	Added Section 3.5 and 6	June 2024
16.1	Rebranding to Strada	October 2024
16.2	AssignmentID override	January 2025
16.3	OAuth for connection to Exchange	February 2025
16.4	Refactoring of EC-Exchange Delta/Standard Integration Flow	May 2025
16.5	Created a new section 5.1.5 for the Refactored iFlows	June 2025
16.6	Corrected screenshot for OAuth Client Credentials in SAP. Added links to API gateway	October 2025
16.7	Added manager id override	February 2026

About this Document

This integration guide helps Strada Professional Services and SAP partner consultants to integrate SuccessFactors Employee Central with Strada Exchange using [SAP SuccessFactors Employee Central integration with Strada for payroll](#).

The reader is expected to be familiar with SAP EC and SAP Cloud Integration technologies.

Related documents

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

Copyright and Trademarks

The contents of this document and all associated computer programs and documentation are copyrighted and may not be reproduced without the written permission of Strada Solutions. Some sections may refer to statutory regulations or requirements. This document is not a substitute for official forms of notification or information, nor is it a definitive statement of the law or intended to form a binding contract.

© 2026 Strada Solutions. All rights reserved.

Table of Contents

Table of Contents	4
Introduction	7
1.1 Strada Global Payroll Solution	7
1.2 Integration Package and Strada involvement	7
1.3 Technology and security	8
1.3.1 Extraction from SF EC	8
1.3.2 Outbound to Exchange	9
1.4 Technical Process Flow	10
2 Prerequisites	11
2.1 Employee Central	11
2.1.1 Mandatory configuration	11
2.1.2 Recommended configuration	12
2.2 SAP Cloud Integration	12
2.3 Exchange	12
3 Integration Overview	13
3.1 Use-cases	13
3.2 Supported Scenarios	14
3.2.1 Supported life cycle events	14
3.2.2 Supported Data changes on the following portlets	17
3.2.3 Business processes	18
3.2.4 Support SuccessFactors Employee Central delivered features/enhancements	19
3.3 Unsupported Scenarios	20
3.4 Troubleshooting	21
3.4.1 Basic troubleshooting	21
3.4.2 Missing hires without event driven integration	22

3.4.3	When interface is stuck in processing	22
3.5	Monitoring and Exception Handling	22
3.6	Integration Key Considerations	25
3.7	Integration Parameters in SAP Cloud Integration	29
3.7.1	Special features	29
3.7.2	Secondary assignment manager	30
3.7.3	Configured fields only	30
3.7.4	Candidate hires exclusion	30
3.7.5	Base64 logging	31
3.7.6	Turn off Work Order	31
3.7.7	Assignment ID	31
3.8	Exchange Integration Parameters	32
3.8.1	Wage type suppression	32
3.8.2	Wage type updates in between other records	32
3.9	EC Mass Import / Bulk uploads	32
3.9.1	Adhoc Run	32
3.9.2	Batch Processing Mode for Scheduled Integration (with manual intervention)	34
3.9.3	Batch Processing Mode for Scheduled Integration (without manual intervention)	35
4	Payroll Integration details	38
4.1	Payroll business process with Exchange	38
4.2	Integration Specifications	38
4.3	Integration details per portlet	39
4.3.1	Biographical Information	39
4.3.2	Personal Information	39
4.3.3	Address Information	40
4.3.4	Email Information	41
4.3.5	Phone Information	41
4.3.6	Employment Information	41

4.3.7 Job Information	42
4.3.8 Compensation Information	44
4.3.9 Payment Information	47
4.3.10 National ID Card	48
4.3.11 Work Location Address	49
4.3.12 Work Permit	49
4.3.13 Alternative Cost Distribution	49
5 Installing the Integration package	50
5.1 Setting-up EC-Exchange Payroll Integration in Cloud Integration	50
5.1.1 Procedure:	50
5.1.2 Receiver Settings	52
5.1.3 Parameters (in order of appearance in the iflow configuration)	54
5.1.4 Value Mapping	56
5.1.5 Refactored SF EC Payroll integration with Exchange	57
5.2 Exchange configuration	59
5.3 AS2 configuration	59
5.4 Upgrading to the latest version of the integration package	61

Introduction

1.1 Strada Global Payroll Solution

“SAP SuccessFactors Employee Central integration with Strada for payroll” is available as an **integration package** in the customer's SAP Cloud Integration account when the customer obtains Employee Central.

The document uses “”, “Exchange” and “Exchange”. Exchange is an integration component of Strada’s suite which acts as the umbrella for several modules: benefits, case management, data analytics, anomaly detections, and document repository. Exchange is the single-entry point for all inbound and outbound integrations from Cloud HCM systems.

Exchange connects to the underlying payroll engines and supports the common Cloud HCM systems and enables abstraction.

1.2 Integration Package and Strada involvement

The SAP EC to Strada integration package offers the following key benefits to clients and implementors:

- Fully developed, maintained, supported, and tested by Strada and officially published in SAP API Hub.
- Out of the box integration with no manual data mapping.
- All business logic is implemented in Exchange where the package acts as an extract and forwarding system of EC data.
- Improved troubleshooting as by sending the raw data and SFAPI query in the payload, problems can be investigated by Strada without dependency on client.

This guide helps the client and SAP partner consultants to integrate SuccessFactors Employee Central with the third-party payroll provider, Strada. Integration is done through a standard Cloud Integration package with Strada Exchange.

The Implementation Guide provides instructions which will assist in the process of integrating data from SuccessFactors Employee Central into Exchange for payroll processing.

It provides details on the configuration and deployment of the new package integration to the client's Cloud Integration tenant. The required set-up in Exchange will be implemented by the Strada application support project team and is out of scope for this document.

Indication of mandatory and optional fields and values per country / payroll vendor is out of scope and needs to be agreed upon during implementation.

1.3 Technology and security

The integration package is built around SAP standard components and is validated by SAP prior to API Hub submission. The package itself is hosted on [SAP API Hub](#), developed by Strada and runs on the client's SAP Cloud Integration tenant.

The next two sections cover the 2 different flows.

1.3.1 EXTRACTION FROM SF EC

The integration flow connects to SuccessFactors employee central to retrieve master data and Foundation objects.

Masterdata changes: master data changes are retrieved from the EC API end point via SFAPI query on CompoundEmployee object using SOAP / XML and secured with OAuth. It typically runs every 15 minutes in delta mode, picking up changes since the last successful run.

An example query could look like:

```
SELECT address_information,  
alternative_cost_distribution,  
compensation_information,  
deduction_non_recurring,  
deduction_recurring,  
email_information,employment_information,  
job_information,  
national_id_card,  
paycompensation_non_recurring,  
paycompensation_recurring,  
payment_information,  
person,  
personal_documents_information,  
personal_information  
FROM CompoundEmployee
```

WHERE last_modified_on > to_datetime('2021-12-14T09:59:55Z') and
company in ('1025','1423')
and employee_class in ('16','17','19','20','21')

Foundation objects: foundation objects are retrieved from the EC API end point via OData using REST / XML and secured via Basic authentication or OAuth. IP whitelisting can be applied for additional security, but this is a client's responsibility as EC instance management is not in scope.

The foundation objects data complements the master data with specific information, such as job titles, position title and cost center names.

An example query could look like <https://api12.sapsf.eu/odata/v2/FOPosition>.

1.3.2 OUTBOUND TO EXCHANGE

The package connects to Exchange to feed the payroll input for further processing and data conversion and mapping.

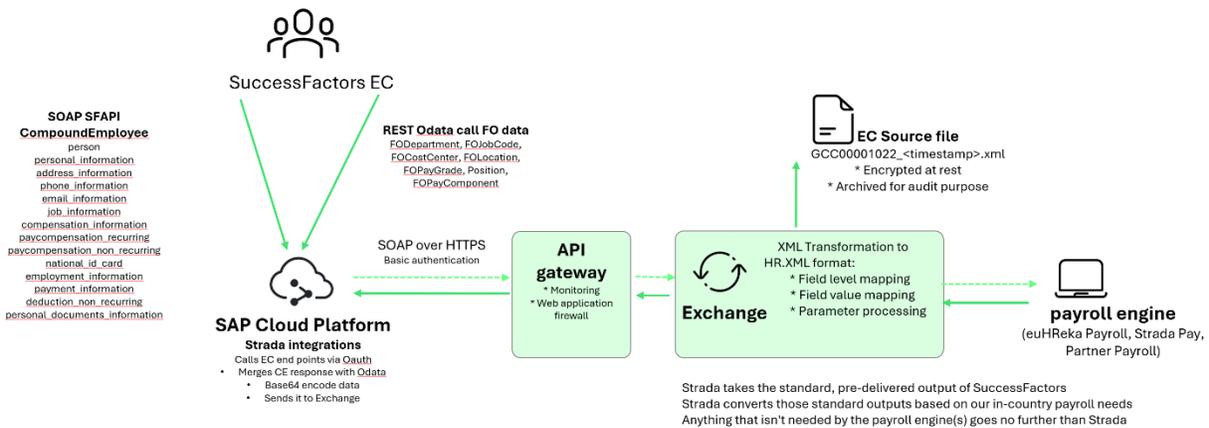
Payload: the combined set of master data changes and foundation objects in XML are pushed to Exchange secured API end point using SOAP / XML and protected via Basic authentication. Base64 encodes the payload prior to sending the data to the HTTPS endpoint of Strada. For the HTTPS connection TLS 1.3 is used.

The confirmation coming back from the Exchange SOAP end point is made visible in SAP Cloud Integration and covers the acknowledgement of the received data in Exchange.

Credentials for these connections are maintained in SAP Cloud Integration as per SAP standard. More information on this can be found on SAP portal. The username and password for the Basic authentication to Exchange are provided by Strada.

1.4 Technical Process Flow

The “Package Integration - SF EC Payroll integration to Exchange “ flow is visualized below:



All data mapping, transformation and validation steps happen in Exchange. Additional validation steps are performed in payroll, e.g. checks on validity of payscales, location codes etc.

2 Prerequisites

2.1 Employee Central

2.1.1 MANDATORY CONFIGURATION

- 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 components; employees will not see these fields when entering data for existing pay components. Instructions on making the changes are available in the [Implementing Employee Central Core](#).
- For Employee Central API (SFAPI 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](#).
- This integration expects that the default fields for all the Foundation Objects used are always enabled and present in OData API DataDictionary:
 - FOCostCenter
 - FOPayComponent
 - FOPayGrade
 - FOLocation
 - Position
 - FODepartment
 - FOJobCode
- Deviations from the SAP standard default fields should be raised to Strada. For FOCostCenter the integration expects costcenterExternalObjectID field to be enabled. For FOPayGrade, field paygradeLevel needs to be enabled.
- The integration expects SAP provided standard values for picklists, for native preferred language code and states. Deviations from the standard could cause data problems and should be reported to Strada before start of testing.

Note: Flag any deviations from the SAP standard configuration of portlets for payroll relevant fields to Strada for assessment.

2.1.2 RECOMMENDED CONFIGURATION

It is highly recommended that payroll relevant configuration in EC on key fields for integration are defined as mandatory and preferably defaulted. The recommendation below is based on experiences gathered from client implementations.

1) Compensation portlet - Pay group

It is recommended that the pay group is defined as mandatory as this is key for integration to work. Preferred defaulting can come from the chosen country and employee class / employment type.

2) Parent picklist

By using parent picklist configuration in EC, it helps the user select valid values for fields with a picklist. Without this set up it may be possible for a user to select a contract type that is accepted in EC but not set up in the payroll engine. This then leads to rejection of the received data.

2.2 SAP Cloud Integration

- The client must have an existing operational production and test SAP Cloud Integration tenants for integration with Strada.
- The consultant performing the configuration steps must be familiar with Cloud Integration and with installation, execution, and monitoring of packaged integrations.
- Licenses can be obtained via Strada but commonly clients obtain this directly from SAP
Contact Strada sales for more questions.

2.3 Exchange

Customer onboarding to Exchange. As this is managed by Strada Service Readiness professionals and application support team from Strada, this is not covered in this document.

3 Integration Overview

3.1 Use-cases

This integration package is intended to be used for replication of data from EC to Strada Worklife in two cases:

*** After go-live (BAU, business as usual)**

The integration is scheduled to run at a fixed interval and requires no manual intervention. It works by sending over changes based on their change / modification date and not on the effective change date. This supports retro, current and future dated changes.

*** Initial load of existing employees**

It is possible to use this package for an initial load if there are no historical records in the EC system which should be discarded. This is the case when the go-live of EC coincides with the go-live of Exchange.

Data migration tool

For the following use-cases, please use the Data migration tool as this is not covered:

- 1) Extract employees with a specific key date (e.g., start of payroll parallel)
 - 2) Sending changes based on their effective date instead of last modified date
- This allows for selection of records valid within a specific period, e.g., May 1st to May 31st.

If employee records exist in EC which should not be migrated to Exchange, please refer to the Data migration document and follow the steps there.

A snapshot-based integration flow has been developed for this. This is relevant when EC is live for a long period and employees might have been transferred to different legal entities in multiple countries. The dedicated data migration allows one to select only relevant and actual records which Exchange needs.

Contact the Strada Solution lead for more information and for further details see the [integration guide](#)  for snapshot-based data migration from EC-Exchange.

3.2 Supported Scenarios

3.2.1 SUPPORTED LIFE CYCLE EVENTS

Strada supports outbound integration from Employee Central to Strada for the following life cycle events:

1. Hire and Rehire

- i. Rehire in the same country and within the same legal entity. This is done in SuccessFactors Employee Central through the regular rehire.
- ii. Rehire in the same country, but in a different legal entity. This is done in SuccessFactors Employee Central through rehire with new employment.
- iii. Rehire in a different country. This is done in SuccessFactors Employee Central through rehire with new employment.
- iv. 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 Exchange with a different EmployeeID representing the new employment generated from SuccessFactors.
- v. 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.

2. Leave Of Absence

- i. Integration generates in Exchange LOA Start event for Employee Central's standard job information event (10) for LOA.
- ii. Integration generates in Exchange LOA End event for Employee Central's standard job information event (23) for Return to Work.
- iii. Integration supports LOA rescind when an LOA is cancelled in EC's time-off portlet. The integration generates a DELETE bod for the LOA created in Exchange and a ticket is automatically created in Assist for downstream payroll manual action.
- iv. Integration supports LOA Start correction when an LOA is edited in EC's time-off portlet. The integration generates a DELETE bod for the existing LOA Start event being corrected which has already been replicated in Exchange and a ticket is automatically created in Assist for downstream payroll manual action. The integration also generates a new LOA Start event in Exchange for the corrected LOA record transacted in EC.

- v. Integration supports LOA End correction when Return to Work is edited in EC's time-off portlet. The integration generates a DELETE bod for the existing LOA End event being corrected which has already been replicated in Exchange and a ticket is automatically created in Assist for downstream payroll manual action. The integration also generates a new LOA End event in Exchange for the corrected Return to Work record transacted in EC.
- vi. When the cancellation of LOA is done after a Return to Work has already been replicated in Exchange the integration generates a DELETE bod for the LOA End event created in Exchange. This results to the original LOA Start event to be kept in Exchange and payroll system. The original LOA needs to be re-transacted in EC and afterwards a return to work or LOA cancelation needs to be done to end or delete the current LOA record in Exchange and payroll system.

3. Termination

4. Transfer (*New employment for change in legal entity*)

- i. 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 ([Prohibiting Change of Legal Entity in Any Employment](#)) so that it doesn't allow a change of legal entity within one employment.
- ii. [Employment](#)) so that it doesn't allow a change of legal entity within one employment.
- iii. 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 same exercise should be performed for country transfer.
- iv. The EC-Exchange integration package supports the termination and rehire with new employment for transfer. It is also supporting regular transfer within the same employment such as location transfer which flows as data change to Exchange.
- v. Not following this approach could lead to unsupported scenarios (see 3.3 Unsupported Scenarios) when using Access resulting in the employee no longer being able to view the payslips for the previous employment.

5. Global Assignment

- i. The standard package supports data changes during global assignment. Start and end of global assignment are integrated using separate integration flows.

- ii. The standard package excludes GA related events (GA, EGA, AGA, BGA) since these events are interface in real time via Intelligent Service Center.
- iii. The standard package ignores any changes to past global assignments (shared and dedicated portlets).
- iv.  For further details see the [integration guide](#) for global assignment solution from EC-Exchange.

6. Concurrent Employment

- i. The standard package supports data changes during concurrent employment. New concurrent employment and termination of secondary employment are integrated in Exchange via event driven integration or through the standard package.
- ii. The standard package ignores any changes to past concurrent employments (shared and dedicated portlets).
- iii.  For further details on the concurrent employment solution from EC-Exchange see the [integration guide](#).

7. Event driven integration

- i. The standard package is able to suppress picking-up EDI related events when EDI feature is enabled to avoid resending duplicate events from EC to Exchange through the [EDI parameter](#) (Event Driven).
- ii.  For further details see the [integration guide](#) for event driven integration feature from EC-Exchange.

8. Contingent worker support

- i. Supported is the standard event for start contingent worker (SCWK) and end of contingent worker (ECWK). When a contingent worker is created, the start and end date fields are set as required by default for Work Order creation. With this the integration of contingent worker generates the hire and termination (future dated) events in Exchange.
- ii. Data change for the following portlets:
 - 1. Person
 - 2. personal_information
 - 3. address_information
 - 4. phone_information
 - 5. email_information
 - 6. employment_information
 - 7. job_information
 - 8. national_id_card
- iii. Hire data change when work order start date is updated and termination date change when work order end date is updated. Note

that when a hire date change is triggered when work order start date is updated, the existing termination record in euHReka is removed. With this there is a need to update the work order end date or edit the job information event (ECWK) to resend the termination in Exchange.

- iv. Rehire of contingent worker as contingent worker, as full-time employee or a full-time employee as contingent worker are supported.
- v. Contingent worker has no Compensation portlet maintained; it is defaulted to pay group 99 in Exchange.
- vi. Supports integration of vendor information (vendor code and vendor name) from the work order via payroll specific grouping (PSG). Whenever there is an update in the vendor information in the work order ensure that an explicit change is performed in the employment information portlet to send over the updated vendor information.
- vii. Global assignment and concurrent employment for contingent worker are not supported.
- viii. Real-time integration and Snapshot DM for contingent worker are not supported.
- ix. Feature activation:

 Configure Packaged ValueMapping - Special Feature

Bi-Directional Mapping St

Agency	Identifier	⇌	Agency
HRIS	Feature	⇌	Activation

Value Mappings: Default Values:

Value Mappings for X Q Add

HRIS, Feature	⇌	Activation, Value	Usage:
<input type="text" value="IsContingentWorker"/>	⇌	<input type="text" value="X"/>	ValueMap (s identifier) = Example: ValueMap /s

3.2.2 SUPPORTED DATA CHANGES ON THE FOLLOWING PORTLETS

1. Person Information
2. Personal Information
3. Email Information
4. Address information
5. Phone Information (enabled for Australia and China only)
6. Employment Information
7. Compensation Information
8. Pay Compensation: Recurring and non-recurring
9. Payment Information
10. National ID
11. Work Location Address
12. Deduction: Recurring and non-recurring

- 13. Work Permit
- 14. Alternative Cost Distribution

Replication of custom portlets or other standard portlets is not possible.

3.2.3 BUSINESS PROCESSES

1. Hire date change
 - a. The integration is able to support hire date correction feature ([KBA 2636395](#)). The integration expects that change of hire date is done via the hire date correction tool.
2. Hire rescind
 - a. 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 generates a DELETE bod for the hire event for Strada IP payroll solutions and a ticket is automatically created in Assist for downstream payroll manual actions such as purging the employee.
3. Termination date change
 - a. 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.
4. Termination event reason change
 - a. 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.
5. Revoke / Rescind Termination
 - a. 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. A separate *add* BOD is also created to correct date specification records.
 - b. To ensure termination rescind is interface without any issue, avoid transacting in EC the revoke termination (deletion of the termination event) and update of the job information at the same time. Only update the job information after the termination rescind has been successfully processed in Exchange.

6. Compensation event reason change. For further details see [3.2.8](#).

3.2.4 SUPPORT SUCCESSFACTORS EMPLOYEE CENTRAL DELIVERED FEATURES/ENHANCEMENTS

1. Support hire for fixed term
 - a. The standard package supports this feature by creating both the hire and termination (future dated) events in Exchange at the same time.
2. Support rehires with new employment
 - a. 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.
 - b. The standard package supports this feature by creating a hire event in Exchange for the employee with the same PersonID but different EmployeeID.
3. Support original hire date for rehire with new employment for [KBA 2080126](#)
 - a. 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.
 - b. The new package supports storing the original hire date using a custom date field in SuccessFactors Employee Central in employment information portlet.
 - c. For further details see Section [3.2.6](#).
4. Time-off Integration.
 - a. The EC-Exchange Payroll Integration package includes a dedicated integration flow for time-off.
 - b.  For further details see the [integration guide](#) for time-off solution from EC-Exchange.

3.2.5 COUNTRY SPECIFIC “LOCAL” DATA

The standard solution for country specific “local” data like tax, social security, pensions, insurance etc. is to use Strada’s solution of providing the input via a form on employee level or use Excel templates for bulk updates.

Some countries allow dependents / family members to be captured as this can be relevant for payroll. As the captured data in EC is usually not aligned with the payroll requirements,

this is not supported in the integration. However, some exceptions apply.

For enabling automatic generation of Exchange's forms, customer can configure and deploy Packaged Integration - SF EC Local Data to Exchange. The configuration steps are the same with the regular delta integration flow. Recommended frequency of local data integration flow is to schedule it to run weekly. Local forms currently supported:

- JPADDR (Japan Official Tax Address)
- JPPD (Japan name in Kanji and Katakana)
- JPFA (Japan dependents)
- SGPI (Singapore work permit)
- BRFAM (Brazil dependents)

Adding support for other countries / forms is subject to change management and has to be requested during project implementation. Due to the complexity, this is subject to Strada's approval and discretion.

It is not possible to have mixed sources for a single form, either all data is coming from EC or it is manually entered.

3.3 Unsupported Scenarios

Following scenarios are not supported in the current release:

1. 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 Strada via Assist for this scenario.

2. Additional payments for transferred employees keeping the same employment ID.

If an employee is transferred to a different company via transfer action (without having a termination + rehire with new employment on EC) then it won't be possible to add additional payments (bonuses) to the old company. As the employment ID remains the same, the integration cannot identify to which company this bonus belongs to. Any bonus added after the transfer will be linked to the new company. Solution: Enter the pay elements manually in Exchange where the right employment can be selected.

3. Rescind of company transfer

This is an exceptional case and is not something that can be automated to reinstate the original records. This for now requires manual intervention in Exchange and payroll to correct this.

Workaround: Raise a ticket to Strada via Assist for this scenario.

3.4 Troubleshooting

In case the integration to Exchange is not behaving as expected, the following troubleshooting should be performed.

3.4.1 BASIC TROUBLESHOOTING

- Ensure that the filters for last modified on and employee selection (company code, department etc) are all set up correctly so that the employee for which data is missing is not excluded.
- Ensure that the scheduled run (e.g., every 15 minutes) did not error out in Cloud Integration. Certain changes (hire, termination) are sent over in real-time when Intelligent Service Center is enabled so make sure all runs show up in Cloud Integration and finished successfully.
- Rerun the integration ad-hoc for a single employee for the missing change(s) with Cloud Integration trace turned on. The tracing preserves the CompoundEmployee response from EC and is key in troubleshooting. If it does not return any records or an error, no data is sent to Exchange. Check that all steps are completed successfully.

Suggested article: <https://apps.support.sap.com/sap/support/knowledge/en/2537470> or Technical User Guide SAP SuccessFactors Employee Central integration with Strada for Payroll.

If the problem is not clear and the above steps are all executed, contact Strada via a ticket for further support and provide all relevant information. Strada will then reach out to you for a joint working session as Strada does not have access to client's EC or Cloud Integration instance.

Missing hires / terminations for event driven integration

If the event driven integration is enabled and hires and terminations are not showing up in Exchange, then make sure you check the following:

1. Confirm that business rules and filters are still active and correct as they control the event triggering.
2. New hire event appears in Intelligent Service Center and does not show an error.
3. Executions in Integration Center for the new hires appear and do not show an error

4. In Cloud integration tenant confirm that there is a corresponding run for the hire / termination

3.4.2 MISSING HIRES WITHOUT EVENT DRIVEN INTEGRATION

The integration looks at record change date so if event driven integrations is not enabled, a manual resend can be done. The recommendation is to create a copy of the standard package and run the integration there by providing the person id of the missing employee. Ensure that the “last modified on” is before the creation date of the employee to have all records returned. Failing to do this could result in only data changes coming over which would then error out as the person is not hired.

3.4.3 WHEN INTERFACE IS STUCK IN PROCESSING

If the scheduled interface executions are stuck (status not changing) and continuously generating new messages following the frequency set, it is recommended to stop/undeploy the integration. If the problem persists, contact SAP to support.

3.5 Monitoring and Exception Handling

- **Package Integration - SF EC Query Tool** allows extracting the raw Compound Employee response. This helps in determining production issue if it is related to the integration itself or a bug in the standard SAP Compound Employee response. Configure and run this new iflow just like the BAU iflow.
- Source XML file available in Exchange includes the message-id in Cloud Integration and the version of the integration flow to determine if customer is running on the latest version. While the messageID in the XML source file received in Exchange helps in tracking the corresponding integration message in Cloud Integration.

```
<?xml version="1.0"?>
<ECNextGen xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:nga="http://www.ngahr.com/nga"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xml="http://www.w3.org/XML/1996"
<logicalId>Z05-00000-1022</logicalId>
<ComponentID>northgateIT6-ECNextGen</ComponentID>
<MessageId>AF9bT98Q7Wk45cD4x76IxxK2518F</MessageId>
<Version>17.0</Version>
```

The same message-id is included in the file name of the batch/source file which allows searching the corresponding batch in Exchange given the message-ID in Cloud Integration.

All company groups ▾ Last 30 days ▾

Inbound files Events Documents

Q AGe5BicfnOeEkQbbR7csQun3kR Clear filter(s) Export Mass action ▾ Refresh

Inbound files >>	Status ▾	Sent date ▾ ↑	Sender ▾	Elapsed time ▾	Company group ▾	Link to content
File type ▾						
<input type="checkbox"/> Batch files	Waiting	Feb 19, 2025, 02:26	EC Masterdata	00:00:01		Display event

Columns Filter

- Include additional logs saved as attachment in the message in Cloud Integration to have visibility of what changes are expected to be received in Exchange in case of outages. This facilitates recovery capability.

Package Integration - SF EC Payroll Integration to hrX Exchange_V20.1
Last Updated at: Aug 13, 2021, 13:05:12

Status Properties Logs **Attachments** Artifact Details

Name	Modified At	Size	Actions
Change Logs: text/csv	Aug 13, 2021, 13:05:12	1 KB	↓

When you open the attachment, you can see details below:

Name: Package Integration - SF EC Payroll Integration to hrX Exchange_V20.1 Status: Completed Processing Time: 13 seconds
Last Updated at: Aug 13, 2021, 13:05:12 Log Level: Info

Log **Change Logs:**

```
action,PersonID,EmployeeID,Portlet,Event,EventReason,LastModifiedOn,LastModifiedBy
CHANGE,E00001172,E00001172,job_information,H,HIRNEW,2021-08-13T05:01:17.000Z,kirkdominicm
CHANGE,E00001172,E00001172,paycompensation_recurring,,2021-08-13T05:02:15.000Z,kirkdominicm
CHANGE,E00001172,E00001172,person,,2021-08-13T04:58:57.000Z,kirkdominicm
CHANGE,E00001172,E00001172,personal_information,,2021-08-13T04:58:25.000Z,kirkdominicm
INSERT,E00001172,E00001172,address_information,,2021-08-13T05:00:24.000Z,kirkdominicm
INSERT,E00001172,E00001172,national_id_card,,2021-08-13T04:59:34.000Z,kirkdominicm
```

Download and save it as csv to open in Microsoft Excel

	A	B	C	D	E	F	G	H	I
1	action	PersonID	EmployeeID	Portlet	Event	EventReason	LastModifiedOn	LastModifiedBy	
2	CHANGE	E00001172	E00001172	job_information	H	HIRNEW	2021-08-13T05:01:17.000Z	kirkdominicm	
3	CHANGE	E00001172	E00001172	paycompensation_recurring			2021-08-13T05:02:15.000Z	kirkdominicm	
4	CHANGE	E00001172	E00001172	person			2021-08-13T04:58:57.000Z	kirkdominicm	
5	CHANGE	E00001172	E00001172	personal_information			2021-08-13T04:58:25.000Z	kirkdominicm	
6	INSERT	E00001172	E00001172	address_information			2021-08-13T05:00:24.000Z	kirkdominicm	
7	INSERT	E00001172	E00001172	national_id_card			2021-08-13T04:59:34.000Z	kirkdominicm	
8									
9									

- Integration also generates error log attachment in Cloud Integration event monitoring for Compound Employee extract with problematic data. Integration also allows exception mail to be generated for failed messages in Cloud Integration. Likewise, in case of unsuccessful extraction, the following logs will be available:

[Overview / Monitor Message Processing / Message Processing Log Attachments](#)

Name: Package Integration - SF EC Payroll Integration to hrX Exchange_26.2 Status: Completed Processing Time: 4 sec 480 ms
 Last Updated at: Sep 12, 2023, 18:01:50 Log Level: Trace

Log Parameter:

Parameter
 null
 Total Number of Employees in this Run: null
 Query Parameter: last_modified_on > to_datetime('2023-09-01T00:00:00Z') and person_id_external in('E00009250') and hiringNotCompleted = 'false'

- Integration flows can handle timeout and connection reset errors in Cloud Integration. Timeout parameter has been externalized and defaulted to 4 minutes.

Timer Receiver More

Receiver:

Adapter Type:

Connection

Address:

Credential Name:

Timeout (in ms):

- Interface handling of SOAP error.** Currently when interface encounters time-out exception/issue in SOAP call the file is still sent successfully to Exchange but the interface fails in Cloud Integration. When this happens, the integration keeps running on schedule sending the same file to Exchange multiple times until the integration is stop in Cloud Integration. In release 19 the interface is enhanced to avoid sending the same file continuously to Exchange after SOAP time-out error. The handling is done via a new integration flow, *SF EC Core Exit to Exchange*, which is responsible for tracking SOAP time-out error. The schedule keeps on running and failing but it is no longer sending the same file to Exchange. Once the integration is stopped, client can reach out to Strada team to validate if the initial file (1st failure of the integration) was successfully processed in Exchange. If yes, then client can perform an adhoc run using the variable ([ComponentID parameter]_LastModifiedOn_New) from Operations View->Variable as the LastModifiedOn. Once the catchup run is completed client can revert the interface to its schedule.
- When the interface is incorrectly scheduled with lastmodifiedon parameter not empty, the interface keeps extracting the same records and sending it multiples

times to Exchange until the schedule is manually stop. A handling mechanism was implemented to avoid this scenario.

- Show Compound Employee error messages in Exchange
 - a. Functionality: Compound Employee logs containing errors and warning for specific employees are now made visible in hr: review status.
 - b. Benefits: By making the errors or warnings for data related issue detected by the Compound Employee visible in Exchange, the corrective action can be done in SuccessFactors as the HRIS.

3.6 Integration Key Considerations

This chapter covers key considerations and recommendations for the integration.

Some limitations mentioned here are limitations due to SAP system design. This is out of Strada control.

Maximum records and splitting

EC-Exchange Payroll Integration supports processing of maximum 300 MB source file at a time. If there is a need to process more than 300 MB of source file, 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 five filters to be used:

- Location
- BusinessUnit
- EmployeeClass
- Company code
- Pay group

These filters are all comma delimited. Hence, we can use these filters to limit out the number of records at a time.

The company code filter is mandatory to avoid that out-of-scope countries for Strada are picked up and enables a wave-based go-live in which additional countries are added throughout the project.

PersonID External

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 Exchange.

The filter can be used to exclude certain employees too but using ! (exclamation mark) before the person id value. Example: !233444 will exclude 233444 from the selection.

Mass uploads into EC (SAP restrictions)

While scheduling this integration you must ensure that mass updates via Import are not taking place in the system. If so, this could potentially lead to:

1. Data Loss
2. Duplicates

This is a recommendation from SAP as documented in section 2.4 of the [Employee Central Compound Employee API](#) and described in KBA 2767376.

This document also explains that the same limitations apply when integration directly with Employee Central Payroll and not a Strada limitation.

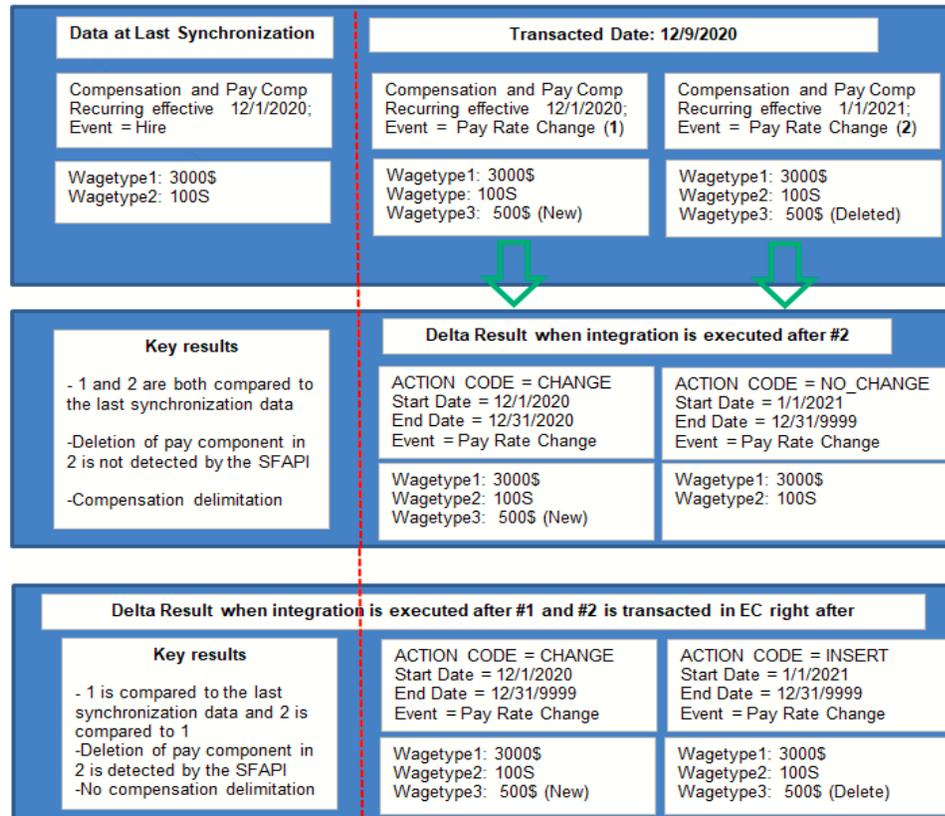
When performing mass uploads into EC (e.g., Merit increase) consider the following steps as per SAP recommendations:

1. Stop the scheduled integration and take note of the lastmodified_lv in Monitor->Variables.
2. Load the data into EC and validate correctness.
3. Run the integration (ad hoc) with lastmodifiedon parameter = lastmodified_lv from the scheduled integration. This will send mass upload changes to Exchange.
4. Revert the scheduled integration.

Top of stack support (SAP restrictions)

- Integration processes job event information 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.
- When a new sequence is added to an existing effective date in a portlet such as job and compensation. Any further changes like the creation of another

job or compensation record should be transacted after the integration has successfully interfaced the first change. This is to avoid the inconsistent result of the SFAPI response where it compares both new changes to the job information or compensation information corresponding to the original event. See below illustration:



- Avoid making multiple changes to job information or compensation data in a single integration run if they are of a different nature: change, delete, insert.

Data mapping

The following EC field values are sent from EC to Exchange as-is and must be mapped in Exchange by Strada. These values are mapped via Customer Configuration in Exchange. Strada Exchange support team will perform required maintenance based on the information provided by the customer.

- Company code => Exchange LCC
- Optionally: Pay Group => Exchange pay group code
- After an employee is hired in Employee Central and replicated in Exchange, if there is a further change to the hire date of the employee, then a CHANGE BOD is generated capturing the change in the hire date of the employee.

- After an employee is terminated in Employee Central and replicated in Exchange, if there is a further change to the termination date of the employee, then a CHANGE 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 Exchange and if the termination is DELETED in Employee Central, then a DELETE BOD is generated capturing the termination event details.

Pay component setup

Ensure that you create separate pay components for payments and deductions in Employee Central for the Exchange system to differentiate payments from deductions.

Integration first run

Any employee data in Employee Central prior to setting up this integration must be manually updated in Exchange (data migration activity). After you have set up the integration, newly created data and modified data are sent to Exchange via the integration. The integration in itself is not intended to be use for migrating existing data from EC to Exchange.

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.

Integration scheduling

Set the primary or BAU integration flow timer to “Schedule to Recur” and set it to run at least every 15 minutes ensuring that LastModifiedOn and PersonIdExternal parameters are set to empty.

When you run this integration on the SAP Cloud integration, set the frequency NOT less than 15 minutes. This is in consideration of the recommended frequency from SAP on [Employee Central Compound Employee API](#).

Data loss protection

To avoid data loss due to network errors or problems with nodes or Exchange maintenance, there's resilience built in. As the integration only sends over changes based on the last run, there's a risk of losing data if the data is successfully extracted from EC at step 1 but delivery to Exchange in step 3 fails. To mitigate the ‘last successful run’ date is only updated if the data sent to Exchange is acknowledged. The acknowledgement

contains a confirmation ID and comes from the Exchange application server. If there is no confirmation due to problems, then the date is not updated. Upon the next scheduled run, the original “last successful run” date is used.

Example: last successful run is 2021-02-18T09:00:00, if the integration runs every 15 minutes it retrieves changes since 2021-02-18T09:00:00. If the delivery fails, then the last run is not updated to 2021-02-18T09:15:00 but stays at 2021-02-18T09:00:00. This ensures that a bank account change made on 2021-02-18T09:05:00 is not lost. If at 2021-02-18T09:30:00 the integration is successful, it picked up all changes since 2021-02-18T09:00:00 and the “last successful run date” is updated to 2021-02-18T09:30:00.

3.7 Integration Parameters in SAP Cloud Integration

3.7.1 SPECIAL FEATURES

The “Packaged ValueMapping - Special Feature” controls the integration behavior and can be used to change defaults. This section covers the available parameters and their defaults. To override a default value, specify it in the value map under “Value” field.

Chapter	Functionality	Key	Value (for enabling)	Default
3.7.2	Secondary assignment manager	SecondaryAssignment_M	X	
3.7.3	Configured fields	configuredFieldsOnly	X	Off
3.7.4	Hiring incomplete	hiringNotCompleted	X	
3.7.5	Base64 logging	Base64_Log	X	
3.7.6	Turn off Work Order OData call	OFF_CW	X	Blank
3.7.7	AssignmentID	AssignmentID	X	Blank
3.9.2	Batch processing limit	BatchProcessing_MaxLimit		1000

3.9.2	Batch processing	BatchProcessing_Scheduled		
3.7.8	Interface job relation portlet	ManagerID_Override	X	
3.7.8	Interface job relation portlet	ManagerID_Override_AssignmentID	X	

3.7.2 SECONDARY ASSIGNMENT MANAGER

Part of the solution is the option to suppress integration of secondary employment when it is not relevant for payroll. With this, we introduced the concept of the Light (suppress sending secondary employment to Exchange) and Full variant (sends both secondary employment) of concurrent employment which can be activated via value mapping.

With 22.5 the logic to determine the approver is adjusted to cover the case when an employee is hired under a manager's secondary employment and concurrent employment is in light mode. The new logic ensures that manager's primary employment is set as the manager for the employee.

3.7.3 CONFIGURED FIELDS ONLY

The current integration picks up all fields from SuccessFactors even if they are disabled in the Business Configuration screen. This causes a problem for certain fields since the transformation creates unwanted entries in the BOD. The Package Integration - SF EC Payroll Integration to Exchange by default will include in its query the parameter: resultOptions=configuredFieldsOnly. Note that there is an opt-out option for this feature by maintaining the value mapping in chapter 3.7.1

3.7.4 CANDIDATE HIRES EXCLUSION

When candidate information (not yet fully/completely hired) is transacted in Onboarding module in SuccessFactors, the unwanted hire event is sent to Exchange. The current integration works with an inclusion filter on company codes and optional additional filters like pay group. By design the candidates are not payroll relevant and integration should exclude them from getting interfaced. To support this requirement, the feature can be activated via the value mapping

Configure Packaged ValueMapping - Special Feature

Bi-Directional Mapping

Agency	Identifier	⇔	Agency
HRIS	Feature	⇔	Activation

[Value Mappings:](#) Default Values:

Value Mappings for

HRIS, Feature	⇔	Activation, Value
<input type="text" value="hiringNotCompleted"/>	⇔	<input type="text" value="X"/>

Once the feature is activated candidates are excluded from being sent to Exchange by adding the condition 'hiringNotCompleted = false' in its CompoundEmployee/SFAPI query in delta mode for the standard integration. For EDI and Global Assignment integration flows, which uses snapshot mode, the integration excludes records with employment_information>hiringNotCompleted is equal to true.

3.7.5 BASE64 LOGGING

Activate Base64 logging to analyze garbled characters issue.

Packaged Integration - SF EC Local Fields to Exchange and Package Integration - SF EC Payroll Integration to Exchange are enhanced to enable logging both the payload prior to Base64 conversion and the base64 file which is sent to Exchange.

3.7.6 TURN OFF WORK ORDER

Turn off Work Order integration if this is causing problems.

3.7.7 ASSIGNMENT ID

Support added for scenarios where a client with SAP SuccessFactors uses Assignment ID for the employee id in Exchange. This enables changing the default field of userid to Assignment ID.

3.7.8 MANAGER ID OVERRIDE

When enabled this includes the "Job relationship" portlet content in the data sent to Exchange. This is relevant when Strada platform has time management enabled for employees and the approver is not the line manager but the manager from a specific relation, e.g. HR manager.

If the assignment_id is to be returned instead of the user_id, enable ManagerID_Override_AssignmentID flag. This is typically used with the content in section 3.7.7

3.8 Exchange Integration Parameters

Exchange supports field overrides and payroll specific grouping fields to deal with non-standard set ups or custom fields. Contact the Strada project team for more information.

Common parameters are listed below.

3.8.1 WAGE TYPE SUPPRESSION

Wage type suppression is supported via configuration in Exchange. This allows configured wage types that are not relevant for payroll not to be sent to Exchange. Reach out to Strada project support team to achieve this.

3.8.2 WAGE TYPE UPDATES IN BETWEEN OTHER RECORDS

Integration handles unwanted delimitation of wage types in euHReka after create/update of a compensation information record in between 2 existing records. This is achieved by customer configuration in Exchange. Reach out to Strada project support team to enable this.

3.9 EC Mass Import / Bulk uploads

EC supports updates in bulk via upload files to e.g., perform common activities like merit increase, organization restructuring, update of job fields for a large number of workers. This results in updates detected for a significant number of employees which need to be processed without risking data not being detected. This is a complex process. Customer can opt for any of the following solutions:

3.9.1 ADHOC RUN

It is expected that for mass upload the scheduled integration is stopped and **Package Integration - SF EC Payroll Integration to Exchange** is executed adhoc with parameter Process in Batch set to 1:

Process in Batch:

A new receiver MassUpload is created to define the page size or the number to be used for splitting the records. For i.e., 5k employee with page size input of 250 means 20 batch runs

are generated and sent to Exchange.

Timer **Receiver** More

Receiver: MassUpload

Adapter Type: SuccessFactors

Connection

Address: https://<SFAPI end point url> [Select](#)

Authentication: Basic

Credential Name: <SuccessFactors EC Credentials>

Processing

Page Size: 250

Timeout (in min): 4

Once the integration is executed, several messages in Cloud Integration are triggered which process the records and send to Exchange.

Messages (23)

Artifact Name	Status
Package Integration - SF EC Payroll Integration to hrX Exchange_v20_copy	Completed
Package Integration - SF EC Core Exit to Exchange_v20	Completed
Package Integration - SF EC Core Exit to Exchange_v20	Completed
Package Integration - SF EC Core Exit to Exchange_v20	Completed

Package Integration - SF EC Payroll Integration to hrX Exchange_v20_copy
Last Updated at: Jul 30, 2021, 20:26:30

Status Properties Logs Attachments Artifact Details

Message processing completed successfully.

Processing Time: 6 min 1 sec

Properties

Message ID: AGED7o35GVfoRz7Jy8F3_gYJ9cKI
Correlation ID: AGED7o3VwyQmtVikX9Y9VKDKHG0CN

Logs

The 1st message is the main integration flow followed by several messages representing the batches created based on the page size input. The main integration flow and the child messages are linked by the correlation ID. You can see further details of the main integration flow run by checking the Attachments->Parameter:

Package Integration - SF EC Payroll Integration to hrX Exchange_v20_copy
Last Updated at: Jul 30, 2021, 20:26:30

Status Properties Logs **Attachments** Artifact Details

Parameter:	Jul 30, 2021, 20:26:30	1 KB	↓
text/plain			

Name: Package Integration - SF EC Payroll Integration to hrX Exchange_v20_copy Status: Completed Processing Time: 6 min 1 sec
Last Updated at: Jul 30, 2021, 20:26:30 Log Level: Trace

Log CE_Log: CE_Log: CE_Log: **Parameter:**

```
Mass Upload  
batchSize=300  
Total Number of Employees in this Batch: 6348  
Query Parameter:last_modified_on > to_datetime('2021-07-23T00:00:00Z')
```

The batch message also contains information in Attachments->Parameter:

Name: Package Integration - SF EC Core Exit to Exchange_v20 Status: Completed Processing Time: 1 sec 304 ms
Last Updated at: Jul 30, 2021, 20:26:30 Log Level: Info

Log Parameter: [Download](#)

Batch sequence: 22
Number of Employee in this Batch: 48
Query Parameter: last_modified_on > to_datetime('2021-07-23T00:00:00Z')
Employees Included in this Batch: e00009273,e00009274,e00009275,e00009276,e00009277,e00009278,e00009280,e00009281,e00009282,e00009283,e00009284,e00009285,e0000928

In case of failure the integration has now recovery capability since the batch message contains the employees belonging to that specific batch. If you have 20 batches and for some reason the 18th batch failed, you can run the integration processing from batch 18 by

keying:

This would make the integration rerun from batch 18 to 20 avoiding resending successful records from previous batches prior to the failed batch.

3.9.2 BATCH PROCESSING MODE FOR SCHEDULED INTEGRATION (WITH MANUAL INTERVENTION)

The integration, if enabled, is also capable of handling mass update in EC for scheduled integration like when batch processing mode is turned on and run in adhoc. The feature support EC mass update via import for 1k EE per run without the need to perform the following:

- Stop the scheduled integration.
- Execute adhoc run via batch processing mode.
- Revert the schedule.

3.9.2.1 Considerations

For the feature to work by design, the following should be considered:

- Mass import in EC should be split into smaller batches. Recommendation is maximum of 1K EE per- batch if integration is running every 15 minutes.
- Each EC mass import is executed in between 2 interface runs (e.g., XX:00, XX:15, XX:30, XX:45 for frequency of 15 minutes). The timing is dependent on the scheduled frequency set for the integration.
- If above items are not feasible then customer can opt to schedule the integration based on their preferred frequency for a specific duration e.g., 6 AM to 10 PM and perform the mass import on a specific period when the scheduled integration is not running e.g., 10 PM to 6 AM.

3.9.2.2 Activation

Activation is done through maintaining the entry below in the Special Feature value mapping:

Design / SAP SuccessFactors Employee Central Payroll Integration 2.0 with NGA HR.it7 / Configure Packaged ValueMapping - Special Feature / Configure Packaged ValueMapping - Special Feature

Bi-Directional Mapping

Agency	Identifier		Agency
HRIS	Feature	⇄	Activation

Value Mappings: Default Values:

Value Mappings for

HRIS, Feature		Activation, Value
BatchProcessing_Scheduled	⇄	X

- When feature is activated the integration checks if the extracted records at run time is less than the configured value for **BatchProcessing_MaxLimit** (default is 1k) using the same Special Feature value mapping. If yes, then it processes the records like in a batch_processing mode, sending the records to Exchange with 500 EE per batch as default. Otherwise, the scheduled integration keeps on failing with the message indicating the LastModifiedOn. If this happens, customer is expected to run adhoc of the integration in batch processing mode adhoc (*Process in Batch* parameter set to 1) using the LastModifiedOn to send to Exchange the recent mass import done in EC involving more than the max limit configured.
- The limitation of processing only EE based on the max limit automatically per run via the scheduled integration is implemented to avoid potential data loss and duplicates in cases when the mass import is taking time to complete and is running across scheduled integration runs which is very possible in case the schedule is every 15 minutes.
- There should be no impact/changes on the AS-IS logic when doing adhoc run for mass import and setting the parameter *Process in Batch* set to 1 (delivered in 20.0).

3.9.3 BATCH PROCESSING MODE FOR SCHEDULED INTEGRATION (WITHOUT MANUAL INTERVENTION)

3.9.3.1 Solution

The integration delivers a technical solution to handle mass import automatically and removing the following issues brought by the current practices in dealing with mass import:

- Potential issues brought by manual intervention for the recommended Stop-Start exercise and business disruption causing impact on payroll.
- Manual process and monitoring in SuccessFactors which does not address the root of the issue.
- Unwanted duplicates that could lead to touches.

The solution is based on a look back mechanism implemented in the standard integration flow. See further details below:

- Feature is not enabled by default to avoid regression for existing customers that do not have a problem with their AS-IS process when dealing with mass import or currently implementing other process-oriented approach.
- Feature utilizes the data store in Cloud Integration. So when activating the feature ensure that when performing testing that the data store is created as expected.
- For mass import of more than 3k employees, ensure to perform import by batch of 3k employees every after 30 minutes.
- Interface detects mass import based on a predefined threshold.
- If the threshold is met, interface performs lookback/retro mechanism and logs the records to Cloud Integration data store that will be used to determine the valid deltas for succeeding lookback/retro executions.
- Interface always sends the data (without duplicates) to Exchange without any delays.
- AS-IS transformation in Exchange.

3.9.3.2 Activation

- Support mass import via BatchProcessing_Scheduled and BatchProcessing_MaxLimit remains AS-IS. Existing customers using this are encouraged to switch to the new feature. Long term plan is to deprecate the old feature.
- The feature activation is done via adding the following entries to the Special feature value mapping:

Key	Value	Default
MassLoad	X	Blank
RetainDataStore	X	Blank
Threshold_Override	See table below	1000

Threshold

- Threshold is automatically determined and set by the integration flow based on the schedule frequency set for the interface. The threshold value is used to flag if there is a mass import running:

Threshold:

15 min schedule = 1k EEs

30 min schedule = 2k EEs

1 hour schedule = 4k EEs

- **Threshold to be configurable.** Allows the threshold to be configurable in case a customer wants to override the predefined threshold. The default set-up is that if the integration is scheduled every hour, then 4k EEs. With this new mass upload solution can be enabled with 1k EEs threshold. Threshold_Override as part of the Special Feature Value Mapping is created to support this.

4 Payroll Integration details

4.1 PAYROLL BUSINESS PROCESS WITH EXCHANGE

The integration process generates BODs - (Business Object Document) which is an XML file in Exchange's native format - only for those employees who have undergone a change in Employee Central since the last execution of the process. For employee records that do not have compensation information, BODs are not generated and will be ignored by this integration. The changes in Employee Central are categorized as ADD, MODIFY, or DELETE on the 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 CHANGE 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 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.

4.2 INTEGRATION SPECIFICATIONS

The replication of employee master data from Employee Central to 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.

4.3 Integration details per portlet

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

Portlet	Section
Biographical Information	4.3.1
Personal Information	4.3.2
Address Information	4.3.3
Contact Information (Email Info)	4.3.4
Contact Information (Phone Info)	4.3.5
Employment Information	4.3.6
Job Information	4.3.7
Compensation Information	4.3.8
Payment Information	4.3.9
National ID Card	4.3.10
Work Location Address	4.3.11
Work Permit	4.3.12
Alternative Cost Distribution	4.3.13

4.3.1 BIOGRAPHICAL INFORMATION

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

4.3.2 PERSONAL INFORMATION

The Employee Central fields such as birth name, marital status, gender, first name and last name, nationality, native preferred language etc. from personal information portlet are mapped.

Marital Status, Gender, Name Prefix, Suffix, and Salutation

EC standard values are supported in the standard, customer specific values require configuration in Exchange by Strada support teams.

Nationality

There is a core mapping in Exchange which translates the Employee Central ISO-3 country codes to Exchange ISO-2 country codes.

EC standard values are supported in the standard, customer specific values require configuration in Exchange by Strada support teams.

Second Last Name

Second last name is a payroll required field for some countries including Spain and Latin America ones like Mexico. The second last name field from Employee Central is mapped to 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 used for extracting text descriptions 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. In this example PT is returned to Exchange. Correct maintenance of the preferred language is needed as the translations for position and job title depends on the employee's selected native preferred language.

4.3.3 ADDRESS INFORMATION

The Employee Central fields from the address information portlet are mapped.

The integration maps the Employee Central home/ mailing address fields (address1 to address12 or address alternate language fields) to the address line sequence (1 to 12) in Exchange via customer configuration in Exchange. The Strada support team will perform required configuration based on the mapping requirement provided by the customer. Note that the configuration needs to align with Exchange's country specific standard address mapping for SuccessFactors Employee Central as HRIS which means only fields available in the country specific address mapping can be controlled. Likewise, the value of the address fields still depends on the standard response of the SFAPI e.g., the configuration does not support changing the field value from a code to text if the standard response is a code.

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

EC-Exchange Payroll Integration through Customer Configuration in Exchange can interface configured additional address types from EC to Exchange to euhReka as payroll service. Though, the Exchange UI only supports the display of the home and mailing address types, the additional address types can be viewed in the BOD.

Delete handling

Deletion of home address is not supported. A delete of the mailing address leads to a delimit (CHANGE).

4.3.4 EMAIL INFORMATION

The Employee Central fields for email from Contact Information portlet are mapped. Only email type = Business is enabled in the standard. The email address must have the primary indicator set to True.

If workers do not have a business email address and need to login to Exchange to view payslips, then email type = Personal integration can be activated by Strada. In case an employee has both business and personal email address stored in EC, the business email takes priority when logging in.

Email Information is a non-effective-dated entity in Employee Central, and since Exchange expects a validity date, this data is sent to 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.

4.3.5 PHONE INFORMATION

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

Phone Information is a non-effective-dated entity in Employee Central, and since Exchange expects a validity date, this data is sent to 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.

Phone information is only enabled in Exchange for Brazil, China and Australia.

4.3.6 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.

Original Start Date

The integration checks for field override maintenance in Exchange to override the default mapping for original start date. If there is an entry, then using the same configuration it retrieves the value of the original start date from the defined override custom field (custom_date1 to custom_date15) and maps it to Original Hire Date in Exchange. The custom field should be configured in SuccessFactors Manage Business Configuration with a defined business rule to populate the custom field with the original start date upon the initial hire of the employee. If there is no field override maintained, then integration uses the field originalStartDate and maps it to Original Hire Date in Exchange for hire event.

4.3.7 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. The integration supports multiple job changes and deletion given that the standard Compound Employee API generated the expected deltas based on the timing when the integration runs and how the changes were transacted in EC.

Cost Center

By default, the 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 in the Customer Configuration in Exchange then the 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 Exchange.

Job Title text

The 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 Exchange field 'JobTitle'.

Foundation Object Call

The integration extracts all FO records for position and JobCode. The transformation in Exchange determines which FO record is used based on the effective start date of the job information change.

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 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 Exchange and mapped to field LastPaidDate.in BOD.

Termination Date

The termination date sent to Exchange 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 Strada HR 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 mapped to BOD.

If payScaleLevel is not used in EC, a parameter in Exchange can be maintained to map a source field from job information to BOD's PayScaleLevel.

Event Reason in Alternate Description Mapping

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

Employee Central event	Exchange 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

4.3.8 COMPENSATION INFORMATION

Compensation Change Reason

To enable the interfacing of compensation event reason from SuccessFactors Employee Central to Exchange, feature CompensationChangeReason needs to be maintained in Exchange configuration. Reach out to Strada project support team for activation.

Once the feature is activated, integration by default uses the compensation event reason field as the source field for the compensation change reason. Otherwise, customers can define the source field from custom string fields (custom_string1 to custom_string15) using fieldoverride configuration in Exchange. Reach out to Strada project support team for enabling the field override.

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

The EC- Exchange interface sends the pay component, amount, unit, number, rate, currency to Exchange and Payroll Services. The frequency is not passed to 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 components: Amount, Percentage and Number. Depending on 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 Exchange field Amount otherwise the "paycompvalue" field is used to map to the Exchange field "Amount".
- If both amount and number exist, then they are sent to Exchange if the pay component is maintained in the customer configuration (Strada Exchange support team will perform required maintenance based on the information provided by the customer).

Pay component Percentage

- If the pay_component is not maintained in the customer configuration in Exchange (Strada Exchange support team will perform required maintenance based on the information provided by the customer) and the "calculatedamount" field in Employee Central exists, then the "calculated amount" field is used to map to the Strada field Amount.
- If the pay_component is not maintained in the customer configuration in Exchange (Strada Exchange support team will perform required maintenance based on the information provided by the customer) and the "calculated amount" field in Employee Central does not exist, then the "paycompvalue" field is used to map to the Exchange field Amount.
- If the pay_component is maintained in the customer configuration in Exchange (Strada Exchange support team will perform required maintenance based on the information provided by the customer) then the "paycompvalue" field is used to map to the Exchange field "Units". Also, the Exchange 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 Exchange via the customer configuration in

Exchange (Strada Exchange support team will perform required maintenance based on the information provided by the customer).

Example:

- There are 4 pay components set up in EC as follows:
- 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 if the field calculated amount is enabled or not.

If the field calculated amount is enabled in EC:

Compensation Information History ?

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 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 disabled in EC:

Compensation Information					
Effective as of Mar 2, 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
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 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, and the units of measurement are maintained in the customer configuration in Exchange (Strada Exchange support team will perform required maintenance based on the information provided by the customer).

The integration supports multiple compensation changes and deletion given that the standard Compound Employee API generated the expected deltas based on the timing when the integration runs and how the changes were transacted in EC.

Suppression of wage type is possible and can be configured in Exchange.

4.3.9 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.

If the payment information is provided as part of the hire, a separate data change will be created for that.

The screenshots below show how the pay types look in both EC and Exchange

Payment Information

* Pay Type **Main Payment Method**

Customized Pay Type

* Payment Method **Bank Transfer (05)**

Bank Country **United States (USA)**

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)**

* Pay Type **Payroll**

Customized Pay Type

* Payment Method **Bank Transfer (05)**

Bank Country **United States (USA)**

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)**

* Pay Type **Payroll**

Customized Pay Type

* Payment Method **Bank Transfer (05)**

Bank Country **United States (USA)**

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)**

...are reflected in 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			

4.3.10 NATIONAL ID CARD

Since National ID Information is a non-effective-dated entity in Employee Central, and Exchange expects a validity for it, this data is sent to 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 Exchange. For national ID integration ensure that maintenance is done in customer configuration in Exchange. Strada support team will perform required maintenance based on the information provided by the customer.

4.3.11 WORK LOCATION ADDRESS

The corresponding address of the location field in the job information in foundation object SFOData.FOLocation is picked up as the work location address. The work location address is mapped in case of changes to job information (hiring and job info data changes).

4.3.12 WORK PERMIT

Since Personal Documents Information is a non-effective-dated entity in Employee Central, and Exchange expects a validity for it, this data is sent to 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 is done in customer configuration in Exchange. Strada Exchange support team will perform required maintenance based on the information provided by the customer.

4.3.13 ALTERNATIVE COST DISTRIBUTION

- Cost Center field from Job Information gets overridden when alternate cost distribution is used.
- CostAssignment BOD is only generated from SuccessFactors Alternative Cost Distribution portlet when the sum of percentage of all *alternative_cost_distribution_item* equals 100.
- In EC end dating of the alternative cost distribution is done by creating an empty record with effective date = end date + 1 day. When alternate cost distribution is end dated, Exchange generates CostAssignment BOD with the cost center coming from the job information record in which the *start_date* is within the *alternative_cost_distribution* effective date of delimitation. Ensure that when delimiting alternative cost distribution, a job information change effective delimit date is also created at the same time to send over the updated cost center to Exchange.
- When the effective date of the alternative cost distribution is change, Exchange generates DELETE BOD (record with old start date) and ADD BOD (record with new start date).

5 Installing the Integration package

5.1 Setting-up EC-Exchange Payroll Integration in Cloud Integration

The steps outlined in this chapter require access to Cloud Integration and the user performing these steps is expected to be familiar with Cloud Integration and have the proper authorizations.

5.1.1 PROCEDURE:

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

Package Integration name	Purpose
SF EC Payroll integration to Exchange	Scheduled integration responsible for master data via SOAP webservice to Strada. For existing implementations only.
Package Integration - SF EC Payroll Integration to Exchange Main [NEW]	Extracts and sends employee records from Employee Central to Exchange using compound employee service in delta mode (refactored version - main processing). For new implementations.
Package Integration - SF EC Payroll Integration to Exchange Sub [NEW]	Extracts and sends employee records from Employee Central to Exchange using compound employee service in delta mode (refactored version - sub processing). For new implementations.
SF EC Event Driven via ISC to Exchange	Handles real-time hires and terminations via ISC
SF EC Global Assignment to Exchange	Handles global assignment start / end

SF EC Local Fields to Exchange	Sends over local data for selected countries for dependents
SF EC Time-off to Exchange	Sends over time-off (absences)
SF EC to Exchange Snapshot-based Data Migration	Provides data migration functionality via snapshot for master data
SF EC Query Tool	Extract and output the raw Compound Employee response to analyze production issue [DEPRECATED]
SF EC Script Collection	Cross iFlow technical functionality
SF EC Time-off Data Store Clean Up	Periodic cleaning of time-off data
SF EC Time-off DM to Exchange	Provides data migration functionality via snapshot for time-off.
SF EC Core Exit to Exchange	Core exit implementation. This is triggered when integration is executed in batch processing mode
SF EC Time Account Snapshot to Exchange	Support creation of pay element BOD in Exchange by replicating employee's time-account balances from Employee Central.
Package Integration - SF EC to Exchange Data Reconciliation	Supports snapshot based integration for data reconciliation between Employee Central and Exchange
Packaged Integration - SF EC Temporary Work Schedule to Exchange	Support creation of substitution record in Exchange by replicating employee's temporary work schedule from Employee

5. Click Package Integration - SF EC Payroll integration to 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** tab. For Receiver settings, see [Receiver Settings](#).
8. Click the **Parameters** tab. For Parameters settings, see [Parameters](#).
9. Save the configuration details.
10. Click **Back** to go to the catalog page listing all the artifacts.
11. Deploy the catalog by selecting **Actions > Deploy**.

5.1.2 RECEIVER SETTINGS

For SuccessFactors Adapter Type

The receivers help you to connect to SuccessFactors Employee Central.

Field	Description
Address	Employee Central URL, for example, https://test.successfactors.com
Credential Name	Maintained and deployed security material. Recommendation is to use of type OAuth2 SAML Bearer Assertion (SuccessFactors)

Exchange HTTPReceiver

This receiver is used to connect to Exchange Web Service End Point.

Field	Description
Address	<p>Test</p> <p>https://apigateway.stradaglobal.com/exchangeesb-qas/ws/com.alight.hrx.BatchApi.webservices.providers:submitScpi/nga_pex_ExternalInbound_webservices_provider_submitBod_Port</p> <p>Production</p>

	https://apigateway.stradaglobal.com/exchangeesb/ws/com.alight.hrx.BatchApi.webservices.providers:submitScpi/nga_pex_ExternalInbound_webservices_provider_submitBod_Port
Credential Name	Deployed user credentials for the Strada Web Service Connection. Also supports OAuth2 Client Credentials authentication for customers using Exchange 3.0.

OAuth2 Client Credentials

For customers using Exchange 3.0, for the Exchange Receiver, the address/endpoint is the gateway API provided by the Strada Exchange Support team. The credential should be created and deployed in Cloud Integration->Security Material with type OAuth2 Client Credentials. The OAuth support for Exchange connection is available across all integration flows that sends payload to Exchange.

For the Token Service URL to be used, use this table

Environment	Token Service URL
Test	https://identity-qas.eu.hrx.stradaglobal.com/connect/token
Production	https://identity.eu.hrx.stradaglobal.com/connect/token

Strada provides you during implementation with the client id and client secret.

Create OAuth2 Client Credentials

Name: *

Description:

Token Service URL: *

Client ID: *

Client Secret: *

Client Authentication: *

Scope:

Content Type:

Resource:

Audience:

Custom Parameters [Add](#) [Delete](#)

<input type="checkbox"/>	Key	Value	Send as Part of
No data			

[Deploy](#) [Cancel](#)

When OAuth is used, ensure that the parameter “Exchange Adapter” is set to “HTTP”. See 5.1.3 for details.

MailServer

This receiver helps you to connect to SMTP Mail Server.

Field	Description
Adapter Type	By default, the Adapter Type is Mail .
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 sender.
To	The address of the recipient of the emails generated by the process.

5.1.3 PARAMETERS (IN ORDER OF APPEARANCE IN THE IFLOW CONFIGURATION)

Exclusion of values is not possible hence the parameters work as an inclusion filter.

Parameter Name	Description	Required
Ad-hoc run	If set to 1 then integration does not update LastModifiedOn (LastModifiedOn_LV) variable. Note that if this parameter is set to 0 and there is an input to PersonIdExternal parameter then the integration also does not update the LastModifiedOn (LastModifiedOn_LV) variable. Despite the availability of this parameter it is still recommended to implement a second instance of the package integration for adhoc executions with Ad-hoc run parameter set to 1. This is to avoid impact on the scheduled run of the integration for deltas.	No
BusinessUnit	Comma-delimited list filter (no blank spaces before/after comma) for specifying the business unit to include in the extract. Default: blank	No
Check Valid Change	1 not to send empty batch file in case of EDI	No
Company	Comma-delimited list filter (no blank spaces before/after comma) for specifying the EC company codes to include in the extract.	Yes
ComponentID	Company ID of the Employee Central Instance	Yes
EmployeeClass	Comma-delimited list filter (no blank spaces before/after comma) for specifying the employee	No

	<p>classes to include in the extract. This can be used to include regular employees only and exclude externals / contractors.</p> <p>Default: blank</p>	
Enable AS2	<p>1 to enable transmission via AS2 protocol and 0 for webservice</p> <p>Default: 0</p>	No
Event Driven	<p>1 means EDI is configured in ISC (Intelligent Service Center) and hire, termination, and rehire events are triggered via ISC and created in Exchange in real time. When this parameter is enabled, the delta integration flow suppresses processing of these events to avoid sending duplicate events in Exchange.</p> <p>0 or blank means EDI is not configured. EDI events like hire, termination, and rehire are processed by the regular run of the delta integration flow.</p> <p>Default: blank</p>	Yes
Exchange Adapter	<p>Determine which adapter type is used for EC to Exchange connection. This parameter is available across all integration flows that send payload to Exchange.</p> <ul style="list-style-type: none"> • HTTP (default) means integration sends the payload to Exchange using OAuth2 Client Credentials authentication • SOAP (legacy only) means integration sends the payload to Exchange using basic authentication <p>Default: HTTP</p>	Yes
GCC	Enter the Global Customer Code provided by Strada	Yes
IsEmailEnabled	1 enables the email functionality	Yes
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	N/A

	Employee Central system as of the provided time stamp value.	
Location	Include the foundation object externalCode if you want to include only employees associated with that foundation object. Default: blank	No
Past Contingent Worker	1 to process regular employment of an employee who is a contingent worker in the past Default: blank	No
PayGroup	Comma-delimited list filter (no blank spaces before/after comma) for specifying the paygroup/s to include in the extract. Use ! To exclude a pay group, e.g. !99 Default: blank	No
PersonIdExternal	Comma-delimited list filter (no blank spaces before/after comma) for specifying the person_id externals to include in the extract. Default: blank	No
Process in Batch	Records correspond to 1 CompoundEmployee record. This splits the processing in batches. Default: 0	No

5.1.4 VALUE MAPPING

Value mappings are translation tables between the Employee Central entries and the Exchange values. The following Value Mapping is used in this integration:

Packaged ValueMapping - SF EC to Exchange Concurrent Employment Mode

Set either full or light concurrent employment mode against Local Customer Code. In the first column, enter the Employee Central company code. In the second column, enter the Exchange concurrent employment mode (Full or Light).

Packaged ValueMapping - Custom Field for LOA Portlet

Enable interfacing of custom field from Time-off portlet from EC-Exchange via Payroll Specific grouping. In the first column, enter TimeOff and JobInfo. In the second column, enter the corresponding source custom field from the Time-off portlet and the target custom field under the Job Information portlet.

Packaged ValueMapping - Custom Field for Time-off Portlet

Enable interfacing of custom field from Time-off portlet from EC-Exchange by making the custom field from EmployeeTime Odata available in the source file. In the first column, enter TimeOffCustom. In the second column, enter the corresponding source custom field from the Time-off portlet.

Packaged ValueMapping - Special Feature

Enable activation of special feature for EC-Exchange, see chapter 3.7.

5.1.5 REFACTORED SF EC PAYROLL INTEGRATION WITH EXCHANGE

In the Exchange 2505.0 release, the integration package introduces a refactored version of the standard/delta iFlow, SF EC Payroll integration. This update addresses potential deployment and timeout issues reported by a customer in their Cloud Integration development tenant.

While SAP applied a patch to extend timeout settings, their analysis indicated that the complexity of the existing delta iFlow—particularly the large number of routers—was a contributing factor to the deployment issue. In response, SAP has taken steps to enhance its design guidelines by implementing automated checks to flag similarly complex iFlows in the future. In parallel, Strada has delivered a refactored version of the delta iFlow aimed at modularizing the business logic using Process Direct adapters.

The updated package includes two new iFlows: one for the main process and another for subprocesses, improving maintainability and deployment reliability. These flows are optional, allowing customers to adopt them as needed.

New implementations are recommended to use these.

For Package Integration - SF EC Payroll Integration to Exchange Main aside from the receivers with SuccessFactors and Mail as adapter type, there will be 2 new receivers that are defaulted in the configuration.

Configure "Package Integration - SF EC Payroll Integration to Exchange Main"

Timer Receiver More

Receiver: Nextflow

Adapter Type: ProcessDirect

Address: Delta_Sub_Processing

Configure "Package Integration - SF EC Payroll Integration to Exchange Main"

Timer Receiver More

Receiver: UserExit

Adapter Type: ProcessDirect

Address: Delta_User_Exit

For Package Integration - SF EC Payroll Integration to Exchange Sub aside from the receivers with SuccessFactors and Mail as adapter type there will be additional sender and receivers:

Configure "Package Integration - SF EC Payroll Integration to Exchange Sub"

Sender Receiver

Sender: Sender

Adapter Type: ProcessDirect

Address: Delta_Sub_Processing

Configure "Package Integration - SF EC Payroll Integration to Exchange Sub"

Sender Receiver

Receiver: UserExit

Adapter Type: ProcessDirect

Address: Delta_User_Exit

Configure "Package Integration - SF EC Payroll Integration to Exchange Sub"

Sender Receiver

Receiver: UserExit2

Adapter Type: ProcessDirect

Address: Delta_User_Exit

5.2 Exchange configuration

Configuration will also be required on the Exchange system for EC-Exchange Payroll Integration to work correctly. The configuration steps will be completed by the Strada project support team. A separate guide named “SAP SuccessFactors - Worklife Exchange - Integration - Customer Configuration” describes the necessary configuration steps. The configuration step covers Exchange customer configuration mapping specific for EC-Exchange. This covers the set-up of field overrides, payroll specific groupings and more.

5.3 AS2 configuration

Should the connection to Exchange be using AS2 instead of a standard webservice, contact your Strada Solution Architect for additional documentation on the setup. You can also refer to [configuration guide](#) for AS2 available in API Hub.

Enable AS2:	<input type="text" value=" <Enter 1 to Enable AS2 else 0 for Webservice Call >"/>
-------------	---

A new receiver is also delivered for every integration flow.

Timer	Receiver	More
Connection		
Receiver:	<input type="text" value="AS2_Adapter_Call"/>	
Adapter Type:	<input type="text" value="ProcessDirect"/>	
Address:	<input type="text" value="AS2Endpoint"/>	

A new integration flows, **Package Integration - SF EC AS2 Adapter** is created to handle AS2 support for all the iflows. See expected configuration below:

Configure "Package Integration - SF EC AS2 Adapter"

Sender	Receiver	More
Connection		
Sender:	<input type="text" value="Sender"/>	
Adapter Type:	<input type="text" value="ProcessDirect"/>	
Address:	<input type="text" value="AS2Endpoint"/>	

Sender details address input should match with the same value configured in the calling iflow.

AS2 receiver configuration:

Sender	<u>Receiver</u>	More
Connection	Receiver:	AS2_Receiver
	Adapter Type:	AS2
	Recipient URL:	<AS2 Endpoint>
	Proxy Type:	Internet
Processing	Authentication Type:	Basic Authentication
	Credential Name:	<AS2 Credential>
	Own AS2 ID:	<Own AS2 ID from tenant>
Security	Partner AS2 ID:	<AS2 ID provided by EFT Team>
	Message Subject:	<Message Subject>
	Own E-mail address:	<Email Address>
	Private Key Alias:	<AS2 Key Pair>
	Public Key Alias:	<Certificate Provided by EFT Team>

5.4 Upgrading to the latest version of the integration package

Details of the changes on the latest version can found in the [ChangeLog](#):

Change Log for SAP SuccessFactors Employee Central integration with Strada for Payroll

Version 2501.0 - January release

Package Integration - SF EC Payroll Integration to Exchange - 25.01.0
 Package Integration - SF EC to Exchange Snapshot-based Data Migration - 25.01.0
 Packaged Integration - SF EC Event Driven via ISC to Exchange - 25.01.0
 Packaged Integration - SF EC Global Assignment to Exchange - 25.01.0
 Packaged Integration - SF EC Global Assignment via ISC to Exchange - 25.01.0
 Packaged Integration - SF EC Local Data to Exchange - 25.01.0
 -Feature 524195 - Support override of userid to Assignment ID

Version 2411.0 - November release

All artifacts with version 24.11.0 and updates on all documents for the rebrand to Strada. The release also includes the following fixes:
 -DFCT0019978 - Fix BOD with null Cost Center
 -DFCT0020014 - Fix Data migration snapshot timeout issue

When a new version of the package is published by SAP in the API Hub, you would see that there's a new version available upon logging in into Cloud Integration. Click on the instance of the integration package and click Update Package. This will automatically upgrade all related artifacts and documents.



SAP SuccessFactors Employee Central integration with Strada for Payroll.IT7

This package supports an API based integration to Strada supporting real-time lifecycle events integration, master data changes and time-off.

Vendor: Alight Solutions
Version: 2501.0

Mode: Configure-only



[Overview](#) [Artifacts \(22\)](#) [Documents \(16\)](#) [Tags](#) [Comments](#)

It is required to do the upgrade first of the instances of the integration package in the Cloud Integration QA tenant and perform sanity test and regression test prior to upgrading the PRD tenant. The release of the new version of the integration package in API Hub follows the Exchange release of its latest version in QA. With this, perform the upgrade in Cloud Integration production tenant following Exchange release schedule to avoid issues resulting from misaligned versions of the Cloud Integration package and Exchange.

It is the client's responsibility to ensure that updates are applied on time. Failure to do can result in data rejections for which Strada cannot be held accountable.