SAP SuccessFactors ♡

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)

THE BEST RUN **SAP**

Content

1 What's New in this Guide

This document describes changes to this guide for the recent releases.

Q2 2019

The following table summarizes changes to this guide for the Q2 2019 release and later

What's new	Description	More Info
Added scenarios on how best you can customize a standard integration	You can see specific scenarios for mapping source and destination fields while customizing a standard integration.	Extending the Standard Data Integration [page 34]
Added a Timeout parameter for WorkForce Software Web Service	You can now specify the time (in milliseconds) that the integration takes to establish a successful connection with WFS to push data.	WorkForce Software Web Service [page 29]
Added a note on error message logging in Execution Manager due to missing HIRE Event information	If the HIRE Event information is missing in the Compound employee API response then this integration will log an error message in Execution Manager.	Time Management Business Process with SAP Time and Attendance Management [page 9]

Q1 2019

The following table summarizes changes to this guide for the Q1 2019 release and later

What's new	Description	More Info
A new parameter added for Query Compound Employee receiver	You can now mention the number employee records that you want to process in one go by specifying a value to the Page Size parameter.	Query Compound Employee [page 28]
Added a note on not supporting contingent workers	This integration does not support contingent workers	Overview [page 8]
Added a note on not supporting rehiring of inactive employees with new employment	This integration does not support rehiring of inactive employees with new employment	Time Management Business Process with SAP Time and Attendance Management [page 9]
Added a section on Error Handling	To monitor if an integration ran successfully or with errors, you can check the logs in the Execution Manager Dashboard. The failure messages displayed on the Execution Manager Dashboard are quite descriptive.	Error Handling [page 69]

Q3 2018

The following table summarizes changes to this guide for the Q3 2018 release and later

What's new	Description	More Info
Added a note on concurrent employment	This integration does not support concurrent employee information.	Employee Data Replication [page 11]

Q2 2018

The following table summarizes changes to this guide for the Q2 2018 release and later

What's new	Description	More Info
Updated Checking and Registering IDoc Service section	Added a note on an error message that may be displayed while checking if the service is active	Checking and Registering IDoc Service [page 64]

Q1 2018

The following table summarizes changes to this guide for the Q1 2018 release and later

What's new	Description	More Info
Introduced a new parameter "Go-live_Date", to the Parameters section	We have introduced a "Go-live_Date" parameter which ensures that the employee records in SAP SuccessFactors Employee Central that are greater than or equal to the "Go-live_Date" are sent to the Workforce Software.	Parameters [page 30]

Q3 2017

The following table summarizes changes to this guide for the Q3 2017 release and later

What's new	Description	More Info
Sections updated with SAP Time and Attendance Management instances	Updated EmpCenter instances with SAP Time and Attendance Management instance	Time Management Business Process with SAP Time and Attendance Management [page 9]
		Employee Data Replication [page 11]
		Data Replication Specification [page 13]
		Setting Up the Standard Data Integration [page 27]
		Time Data Replication [page 41]
		Setting Up the Standard Data Integration [page 46]
		Troubleshooting [page 68]

Q2 2017

What's New	Description	More Info
May 19, 2017		

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
What's New in this Guide

PUBLIC **5**

What's New	Description	More Info
Updated the title of the guide.	There are no changes to the guide for this release. However, the title of the guide has changed from Employee Central and WorkForce Software to Integrating SAP SuccessFactors Employee Central with WorkForce Software.	Person [page 14] Phone Information [EC hris-element-id: phoneInfo] [page 15] Personal Information [EC hris-element-id: personInfo] [page 15] E-Mail Information [EC hris-element-id: emailInfo] [page 16] Address Information [EC hris-element-id: addressInfo] [page 17] Employment Information [EC hris-element-id: employmentInfo] [page 18] Compensation Information [EC hris-element-id: compInfo] [page 19] Job Information [EC hris-element-id: jobInfo] [page 20] Pay Compensation Recurring [EC hris-element-id: payComponentRecurring] [page 25] Absence Data [page 42] Remuneration Data [page 43]
March 28, 2017		
Sections updated with mandatory fields	Marked certain fields as mandatory in some sections.	
November 16, 2016		
Added information on Time Data Replication	To include Time Data Replication	Time Data Replication [page 41]
July 27, 2016		
Updated Parameters section	Replaced old screenshot with new one	Parameters [page 30]
Updated Receiver section Updated extending the standard data integration section	Added Sender and Receiver information	Extending the Standard Data Integration [page 34]
May 25, 2016		
Updated Parameters and Receivers section.	Added and deleted the relevant cases.	Parameters [page 51]

What's New	Description	More Info
September 28, 2015		
Integrating Employee Central with Work-Force Software SAP Time and Attendance Management.	Added information on integrating Employee Central with WorkForce Software SAP Time and Attendance Management.	Overview [page 8]

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
What's New in this Guide

PUBLIC   **7**

2 Overview

This guide is for SAP Support or partner consultants to integrate SuccessFactors Employee Central with SAP Time and Attendance Management.

WorkForce Software is a Solution Extension partner. Integration is through a standard integration catalog for validated time management providers. This is an out-of-box way to integrate Employee Central with validated third-party time management providers. No manual data mapping is needed. For more information about Employee Central, see the Employee Central implementation guide.

> **i Note**
>
> This integration does not support contingent workers.

Integration Options [page 8]
>   Use the following process steps as a guideline to successfully integrate Employee Central with SAP Time and Attendance Management. This is a simplified approach to a possible integration process.

Time Management Business Process with SAP Time and Attendance Management [page 9]
>   SAP Time and Attendance Management can be integrated with Employee Central using role-based permissions.

2.1 Integration Options

Use the following process steps as a guideline to successfully integrate Employee Central with SAP Time and Attendance Management. This is a simplified approach to a possible integration process.

Context

You will need to adjust these process steps based on the customer's business requirements. Following is an overview:

Procedure

1. Set up Employee Central.

   For more information, see the *Employee Central implementation guide*.
2. Make third-party provider-specific settings, for example, SFTP server accessibility.
3. Get access to the catalog in SAP Cloud Platform Integration Spaces.

4. Set up the data integration.

2.2 Time Management Business Process with SAP Time and Attendance Management

SAP Time and Attendance Management can be integrated with Employee Central using role-based permissions.

Context
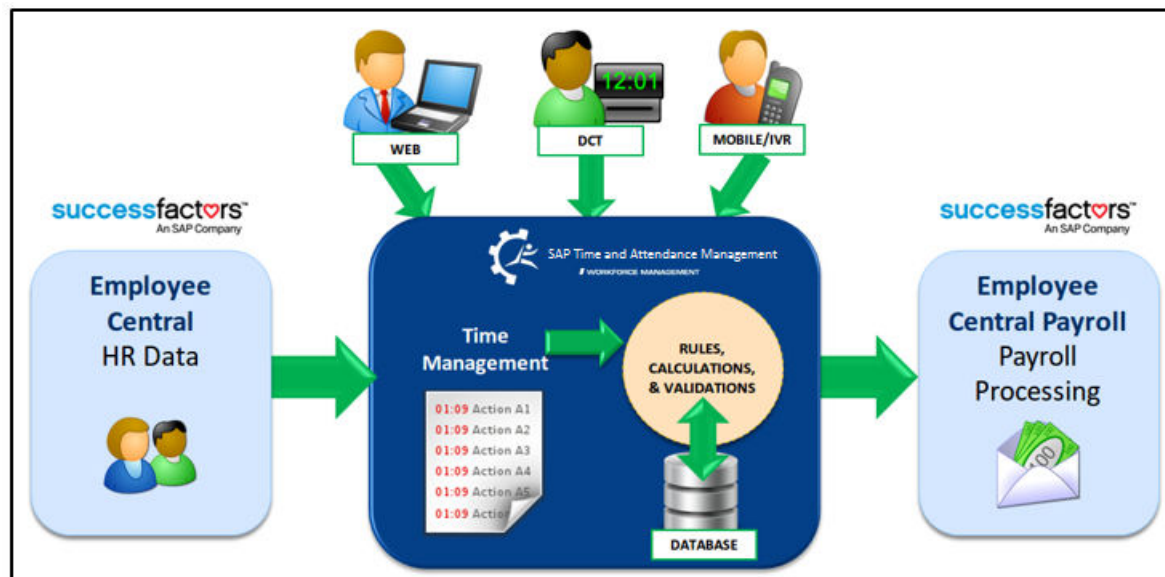
The process to integrate SAP Time and Attendance Management with Employee Central is as follows:

Procedure

1. The HR administrator enters the employee data into Employee Central (such as new hire, rehire, transfer, termination, or change data).
2. An API in Employee Central extracts the required employee data for replication to SAP Time and Attendance Management.
3. SAP Cloud Patform Integration (a mapping and integration tool) replicates the data to SAP Time and Attendance Management.
4. The following data is currently transferred from Employee Central to SAP Time and Attendance Management:
   - Employee master data (name, address, phone, email, and so on)

- Employment and job (hire date, manager, and so on)
- Compensation (annual salary, total compensation)
- Life event notification

> **i Note**
>
> - This integration does not support rehiring of inactive employees with new employment. To see this option on the UI:
>   1. Navigate through ▌▶ *Admin Center* ❯ *Manage Permission Roles* ❯.
>   2. Select the permission role you want to configure.
>   3. On the Permission Settings page select Manage User, *do not select* the **Rehire inactive Employee with New Employment ('by match'in New Hire)** option.
> - The HIRE event information is mandatory to replicate an employee from SAP SuccessFactors Employee Central to WorkForce Software. For some reason if the HIRE Event information is missing in the Compound employee API response then this integration will log an error message in Execution Manager and will not process that employee data further.

5. From Employee Central, employees navigate to SAP Time and Attendance Management to record or manage working times according to the business roles assigned to them in SAP Time and Attendance Management.

6. SAP Time and Attendance Management validates the times entered and sends the time data to Payroll for processing.

3 Employee Data Replication

This chapter describes the process of replicating employee data from Employee Central to SAP Time and Attendance Management.

Context

It comprises the following steps:

Procedure

1. A scheduled SAP Cloud Platform Integration job extracts the employee data from Employee Central as per the configured scheduled time.
2. The extracted data is mapped to and conforms to a WSDL published by WorkForce Software.
3. SAP Cloud Platform Integration calls the Web service and sends the employee data to SAP Time and Attendance Management.

   The employee import supports the following data:
   - New hire
   - Terminations
   - Rehire
   - Employee - manager relationship assignments
4. 4. After the data is received, employee import processing is carried out in SAP Time and Attendance Management. The import processing includes:
   - Transforming the fetched data based on mapped data elements
   - Staging and applying business rules
   - Storing employee data in the SAP Time and Attendance Management database

   > **i Note**
   >
   > These specifications apply to the version for the United States. If a customer implements a version for another country, some adjustments may be necessary.
   >
   > SAP Time and Attendance Management expects the data extraction process via SAP Cloud Platform Integration to return all configuration data fields in a single row.
   >
   > The SAP Cloud Platform Integration process does not support the global assignment feature. Any global assignment data passed is ignored.
   >
   > This integration does not support concurrent employee information.

   Data Replication Specification [page 13]

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Employee Data Replication

PUBLIC **11**

The integration between Employee Central and SAP Time and Attendance Management requires that the fields in Employee Central be mapped to the fields used in WorkForce Software.

SAP Cloud Platform Integration Spaces is a Web-based application that helps you to access the integration content available for a particular tenant in an on-demand integration infrastructure.

The Discover section, click the SuccessFactors Employee Central with Third Party Time Vendor-WorkForce Software(WFS) integration process and configure the Packaged Integration - SF EC to WFS integration flow.

You can customize the current integration solution by mapping additional fields from Employee central to WorkForce Software.

3.1 Prerequisites

3.1.1 Configurations for Employee Central Compound Employee API

The compound employee API for Employee Central extracts the employee data from Employee Central. It returns the employee data in a hierarchically structured response XML (root node: employee person data).

Choose your regional API endpoint from the table below:

Location	End Point
USA, HCM Preview	https://api4preview.sapsf.com/sfapi/v1/soap
USA, Arizona	https://api4.successfactors.com/sfapi/v1/soap
USA, Ashburn	https://api8.successfactors.com/sfapi/v1/soap

Get the generic WSDL by adding ?wsdl to the above addresses. For example, https://api.successfactors.eu/sfapi/v1/soap?wsdl

Apart from the endpoints, an XML schema is provided that describes the XML response of the compound employee API including all substructures and elements. The XML schema is required for integration purposes. It needs to be maintained manually as part of the development process. The new API only provides the query and queryMore operation. All other operations such as list, describe, and describeEx are not supported.

More settings may be required for the following:

- Web service setup
  Follow the standard process for SFAPIs to set up SFAPI operations log in, log out, and to enable the API.
- Thresholds and limits
  The compound employee API has similar thresholds and limitations as the other SFAPIs. You can set this number to a value between 1 and 800 by specifying the maxRows parameter in the query method.
- API enhancements and compatibility

The API response message type can be enhanced with additional elements and attributes. Additional elements and attributes can be supplied by SAP or SuccessFactors and by using custom fields. The external application must be able to process the extended response successfully. The API request message type can be enhanced by new processing and query string parameters (for example an additional parameter for selecting or filtering data). Enhancements of request message types and parameters are always optional. The system does not require the external application to provide optional values and parameters in the request.

3.1.2 Preparations by WorkForce Software

The customer should sync on the following points for initial setup preparations to be done by WorkForce Software:

- Functional preparation
  For example, availability of a document such as Discovery and Requirements Gathering
- Group and time plan setup
  - Technical setup of employee file
    For example, availability of documents such as Integration and Data Migration Discovery
  - SFTP server configuration

3.2 Data Replication Specification

The integration between Employee Central and SAP Time and Attendance Management requires that the fields in Employee Central be mapped to the fields used in WorkForce Software.

If you do not use the integration pack, the mapping must be completed in Provisioning by SuccessFactors Professional Services. Check the tables below to see which of the Employee Central entities and fields are required to replicate data from Employee Central. The table also shows which fields you need to map manually and the corresponding picklist IDs. You will also find descriptions of which mapping activities are necessary for different fields.

The replication of employee master data from Employee Central to SAP Time and Attendance Management uses the CompoundEmployee service from Employee Central.

For Information on Compound Employee Element Structure

...	See HRIS-Element
Personal Information	Personal Information [EC hris-element-id: personInfo]
Phone Information	Phone Information [EC hris-element-id: phoneInfo]
Email Information	E-Mail Information [EC hris-element-id: emailInfo]
Address Information	Address Information [EC hris-element-id: addressInfo]
Employment Information	Employment Information [EC hris-element-id: employmentInfo]

For Information on Compound Employee Element Structure ...	See HRIS-Element
Compensation Information	Compensation Information [EC hris-element-id: compInfo]
Job Information	Job Information [EC hris-element-id: jobInfo]
Job Relationships The time data entry of employees has to be approved by an authorized person. Currently, we support approvals by the supervisor assigned to the employee in Job Information. If you require time approvals to be done by someone other than the supervisor, you can use job relationship information to derive the different approver. As such, Job Information is included as part of the data extract from the Compound Employee API.	Job Relationships [hris-element-id: jobRelationsInfo]
Pay Compensation Recurring	Pay Compensation Recurring [EC hris-element-id: payComponentRecurring]

3.2.1 Person

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
Person_id_external	Person_id_external	Required	No	No	Person/external_hr_id
					Person/user_data/empcenter_login_id
					Person_employee_data/assignment/eff_dated_info/data/badge-id
					Person/user_data_authentication_match_id
Date_of_birth	Date of birth	Optional	No	No	Birth_date
Custom_string_1		Required	No	No	Person/user_data/user_role-match_id

> **i Note**
>
> The snapshot field "asOfDate" is mapped to:

- Person/employee_data/assignment/eff_dated_info/data/effective_date
- Person/employee_data/eff_dated_info/data/effective_date

3.2.2 Personal Information [EC hris-element-id: personInfo]

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
First_name	Employee's first name	Required	No	No	first_name
Middle_name	Employee's middle name	Optional	No	No	middle_name
Last_name	Employee's last name	Required	No	No	last_name
Gender	Employee's gender	Optional	No	No	employee_data/ eff_dated_info/ data/gender
Native preferred language	Employee's preferred language	Optional	No	No	employee_data/ eff_dated_info/ data/ language
Last_modified_on	Latest date of employee data change	Required	Yes	No	last_modifica-tion_time

last_modification_time

Using the function Max Of time stamps, this WorkForce Software field saves the timestamp of the latest modified employee data out of all the last modified fields in Employee Central.

3.2.3 Phone Information [EC hris-element-id: phoneInfo]

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
Phone type		Optional	No	Yes	phone_numbers/ type
Phone number		Optional	No	No	phone_numbers/ phone_number

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
Last_modified_on	Latest date of employee data change	Required	Yes	No	last_modification_time

phone_numbers/type

The Employee Central field Phone type is mapped to the WorkForce Software field phone_numbers/type using the value-mapping table Phone Types. This table is defined in the value-mapping project in SAP Cloud Platform Integration. It must be filled by the consumer based on the picklist and WorkForce Software values. Default mapping values are available.

last_modification_time

Using the function Max Of time stamps, this WorkForce Software field saves the timestamp of the latest modified employee data out of all the last modified fields in Employee Central.

3.2.4 E-Mail Information [EC hris-element-id: emailInfo]

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
Email_type	Employee's email type	Optional	No	Yes	email_addresses/type
Email_address	Employee's email address	Optional	No	No	email_addresses/email_address
Last modified on	Latest date of employee data change	Required	Yes	No	last_modification_time

email_addresses/type

The Employee Central field Email_type is mapped to the WorkForce Software field email_addresses/type using the value-mapping table Email Types. This table is defined in the value-mapping project in SAP Cloud Platform Integration. It must be filled by the consumer based on the picklist and WorkForce Software values. Default mapping values are available.

last_modification_time

Using the function Max Of time stamps, this WorkForce Software field saves the timestamp of the latest modified employee data out of all the last modified fields in Employee Central.

3.2.5 Address Information [EC hris-element-id: addressInfo]

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
Address1	Employee's first address line	Optional	No	No	home_address/ address 1
Address2	Employee's second address line	Optional	No	No	home_address/ address 2
Address3	Employee's third address line	Optional	No	No	home_address/ address 3
City	Employee's city	Optional	No	No	home_address/city
State	Employee's state	Optional	Yes	No	home_address/ state_or_province
Province	Employee's province	Optional	Yes	No	home_address/ state_or_province
Country	Employee's country	Optional	No	No	home_address/ country
Zip_code	Employee's ZIP code	Optional	No	No	home_address/ postal_code
Last modified on	Latest date of employee data change	Required	Yes	No	last_modification_time

home_address/state_or_province

A function determines whether this WorkForce Software field is mapped to the state field or the province field in Employee Central. The field that is not null is used.

last_modification_time

Using the function Max Of time stamps, this WorkForce Software field saves the timestamp of the latest modified employee data out of all the last modified fields in Employee Central.

3.2.6 Employment Information [EC hris-element-id: employmentInfo]

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
User ID		Required	No	No	employee_data/ assignment/ assign- ment_match_id
End date		Optional	No	No	employee_data/ eff_dated_info/ data/termina- tion_date employee_data/ assignment/ eff_dated_info/ data/assign- ment_end_date
Service date		Required	No	No	employee_data/ eff_dated_info/ data/ adjusted_hire_date employee_data/ assignment/ eff_dated_info/ data/ adjusted_be- gin_date
Start date		Required	No	No	employee_data/ assignment/ eff_dated_info/ data/seniority_date
Seniority date		Optional	No	No	employee_data/ assignment/ eff_dated_info/ data/seniority_date

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
Original start date		Required	Yes	No	employee_data/ eff_dated_info/ data/origi- nal_hire_date
					employee_data/ assignment/ eff_dated_info/ data/origi- nal_assign- ment_begin_date
					employee_data/ assignment/ eff_dated_info/ data/latest_assign- ment_begin_date
Last modified on	Latest date of em- ployee data change	Required	Yes	No	last_modifica- tion_time
Direct reports		Optional	Yes (if number of direct reports is greater than zero, the constant value is set)	No	Person/user_data/ manager_types/ manager_type

3.2.7 Compensation Information [EC hris-element-id: compInfo]

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Soft- ware Field
Pay group		Optional	No	Yes	employee_data/ assignment/ eff_dated_info/

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Employee Data Replication

PUBLIC   **19**

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
Pay type		Required	No	No	employee_data/ eff_dated_info/ data/ adjusted_hire_date
					employee_data/ assignment/ eff_dated_info/ data/ hourly_salary_flag
Payroll ID		Required	No	No	employee_data/ assignment/ eff_dated_info/ data/ external_payroll_id
Last modified on	Latest date of employee data change	Required	Yes	No	last_modification_time

3.2.8 Job Information [EC hris-element-id: jobInfo]

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
Company		Optional	No	Yes	employee_data/ assignment/ eff_dated_info/ data/ company_code
Cost center		Optional	No	No	employee_data/ assignment/ eff_dated_info/ data/ cost_center

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
Custom string 9		Optional	No	No	employee_data/ assignment/ eff_dated_info/ data/ union_code
Department	Latest date of employee data change	Optional	No	No	employee_data/ assignment/ eff_dated_info/ data/ department_code
Division		Optional	No		employee_data/ assignment/ eff_dated_info/ data/ division_code
Empl status		Optional	Yes	Yes	employee_data/ eff_dated_info/ data/hr_status employee_data/ assignment/ eff_dated_info/ data/ hr_status employee_data/ assignment/ eff_dated_info/ data/ is_terminated Person/ employee_data/ assignment/ eff_dated_info/ data/assignment_end_date

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
FTE		Optional	Yes	No	employee_data/ eff_dated_info/ data/ fulltime_equiva-lency_percentage
Is full time em-ployee		Optional	No	Yes	employee_data/ assignment/ eff_dated_info/ data/fulltime_part-time_flag
Is primary		Required	No	No	is_primary
Job code		Optional	No	No	employee_data/ assignment/ eff_dated_info/ data/ job_code
Job title		Required	No	No	employee_data/ assignment/ eff_dated_info/ data/ job_title Person/ employee_data/ assignment/ eff_dated_info/ data/assign-ment_description

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
Location		Optional	No	No	employee_data/ assignment/ eff_dated_info/ data/ district_code employee_data/ assignment/ eff_dated_info/ data/ region_code employee_data/ assignment/ eff_dated_info/ data/ location_code
Manager ID		Optional	No	No	employee_data/ assignment/ eff_dated_info/ data/manager_ids/ manager_id/ manager_id
Pay grade		Optional	No	No	employee_data/ assignment/ eff_dated_info/ data/pay_grade
Position		Optional	No	No	employee_data/ assignment/ eff_dated_info/ data/ job_level
Last modified on	Latest date of employee data change	Required	Yes	No	last_modification_time
Timezone		Required	No	Yes	Person/ employee_data/ assignment/ eff_dated_info/ data/time_zone

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Employee Data Replication

PUBLIC **23**

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
Regular_temp		Optional	No	Yes	Person/ employee_data/ assignment/ eff_dated_info/ data/employ- ment_type
Event		Required	Yes	No	Person/ employee_data/ assignment/ eff_dated_info/ data/latest_assign- ment_begin_date
Flsa_status		Optional	No	No	Person/ employee_data/ assignment/ eff_dated_info/ data/flsa_status
Standard_hours	This value is div- ided by working- DaysPerWeek to obtain WorkForce Software stand- ard_daily_hours	Optional	Yes	No	Person/ employee_data/ assignment/ eff_dated_info/ data/stand- ard_daily_hours
workingdaysPer- Week	This value divides Employee Central Standard_hours to obtain WorkForce Software stand- ard_daily_hours	Optional	Yes	No	Person/ employee_data/ assignment/ eff_dated_info/ data/stand- ard_daily_hours

employee_data/assignment/eff_dated_info/data/is_terminated

This field is chosen through a value-mapping lookup ECWF-EC EMPL STATUS TO HR STATUS from the Employee Central empl status.

employee_data/eff_dated_info/data/fulltime_equivalency_percentage

This field is mapped from the Employee Central FTE through the mapped function math multiply.

employee_data/assignment/eff_dated_info/data/fulltime_parttime_flag

This field is mapped through a value-mapping lookup ECWF-EC FULLTIME_PARTTIME to "is full time employee" of Employee Central.

3.2.9 Pay Compensation Recurring [EC hris-element-id: payComponentRecurring]

Employee Central Field Label	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	WorkForce Software Field
Currency code		Optional	No	Yes	phone_numbers/ type
Pay com value		Optional	No	No	phone_numbers/ phone_number
Last_modified_on	Latest date of employee data change	Required	Yes	No	last_modification_time
Frequency		Optional	No	No	Person/ employee_data/ assignment/ eff_dated_info/ data/pay_rate/ frequency
Pay_component_type		Optional	No	No	employee_data/ assignment/ eff_dated_info/ data/pay_rates/ pay_rate/type

3.3   Getting Access to the Solution

SAP Cloud Platform Integration Spaces is a Web-based application that helps you to access the integration content available for a particular tenant in an on-demand integration infrastructure.

In SAP Cloud Platform Integration Spaces, you can access integration packages with artifacts such as value mappings, integration flows, and files. For more information, see Viewing Integration Flow Configurations in the Developer's Guide for Managing Integration Content.

You can edit and configure a package as follows:

1. On the *Discover* tab, click the integration package to be configured.
2. Choose *Copy* (as shown in the following figure).
   On the *Design* tab, you should now find the copied package.

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Employee Data Replication

PUBLIC   **25**

3. To configure and edit the package, follow Editing Integration Flow Configurations in the SAP Cloud Platform documentation.

3.3.1 Common Configuration Steps

3.3.1.1   SAP Credential Deployment

To deploy the following artifacts, see Deploying and Editing a User Credentials Artifact in the Operations Guide for SAP Cloud Platform Integration.

Artifact	Description
SuccessFactors EC SFAPI Credentials	These credentials are used to connect to the Employee Central API servers with relevant API access enabled.
WorkForce SFTP Server Credentials	These credentials are used to connect to the WorkForce Software SFTP server.
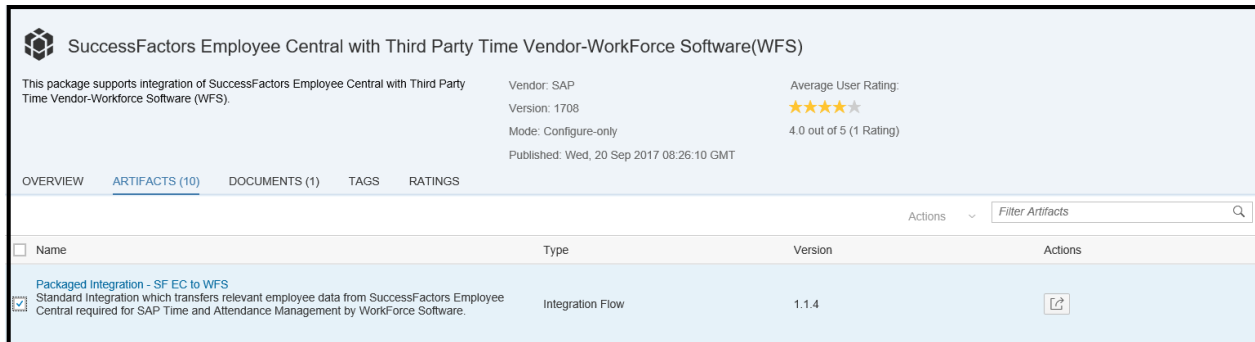
For more information about SFTP-based communication, see the *SAP Cloud Platform Integration for Process Integration*.

3.3.1.2   Value Mapping Maintenance

A set of value-mapping projects are delivered along with the standard process in this integration. It must be deployed in the customer landscape so that the iFlows can refer to the value mappings. For information about using and editing value mappings, see the *Developer's Guide for Managing Integration Content*. For more information, refer to section *Value Mappings*.

3.4 Setting Up the Standard Data Integration

The Discover section, click the SuccessFactors Employee Central with Third Party Time Vendor-WorkForce Software(WFS) integration process and configure the Packaged Integration - SF EC to WFS integration flow.

3.4.1 Scheduler Settings

You can configure the schedule for executing the integration based on business needs. Three options are available as shown in the following figure.

> **→ Tip**
>
> When testing the integration, we recommend choosing *Run Once* rather than scheduling it to run.

3.4.2 Receiver Settings

3.4.2.1   Query Compound Employee

This receiver helps you to connect to Employee Central.

Field	Description
Address	Employee Central URL, for example, https://api.successfac-tors.com
Credential Name	Name of artifact that was deployed in Common Configuration Steps for SFAPI user credentials
Page Size	The number employee records that you want to process in one go. By default, the batch size is 200 which is configurable. The maximum configurable batch size is 800. This configuration will allow seamless processing of records without displaying any Out of Memory errors.
Timeout (in min)	The duration (in minutes) in which the query is sent to Suc-cessFactors Employee Central and response is fetched back. By default, the session time out value is 5 minutes and the same is configurable.

28   PUBLIC

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Employee Data Replication

3.4.2.2   WorkForce Software Web Service

This receiver helps you to connect to SAP Time and Attendance Management.

Field	Description
Address	Employee Central URL, for example, https://test.successfactors.com
Credential Name	Deployed credential name that has the user name and password for the WorkForce Software system
Timeout (in ms)	The amount of time (in milliseconds) that the integration takes to establish a successful connection with WorkForce Software to push data. By default, the Timeout value is set to 60000 ms.

3.4.2.3   Mapping Extension

This receiver helps you to connect to the custom Iflow.

Field	Description
Address	The URL captured after the custom Iflow is deployed.
Credential Name	The credential that was used while deploying the custom Iflow.

3.4.3 Parameters

This page contains, Type 1, all set of parameters and Type 2, parameters that qualify for the Content Modifier. The parameters listed in both Type1 and Type 2 can be customized. To configure the parameters, you can override the default values.

Timer	Receiver	More		
Type:	All Parameters			⌄
business_unit:				
company:				
company_territory_code:				
CustomFieldMapping:	<set true in case of custom mapping extension else set false>			
CustomFilters:				
division:				
ECWF_LAST_MODIFIED_...	2018-01-03T00:00:00.000Z			
employee_class:				
first_load_filter_terminated_...	1			
Go-live_Date:	<This specifies the Go-live of integration between Employee Cen			
ignore_modified_dates:				
location:				
pay_group:				
person_id_external:				

Parameter Name	Description
business_unit	Include the foundation object externalCode if you want to include only employees associated with that foundation object.
Company	Comma-delimited list filter (no blank spaces before/after comma) for specifying the companies to include in the extract.

Parameter Name	Description
company_territory_code (Country)	Enter a single company_territory_code (ISO-3). This field does not accept multiple values.
CustomFieldMapping	Specifies if you need to invoke the custom Iflow. You can provide true for invoking and false for not invoking the custom Iflow.)
CustomFilters	Comma-delimited custom filters for the Compound Employee document in format "person/national_id_card/country=USA,GRE;person/person_id=117", etc.
division	Include the foundation object externalCode if you want to include only employees associated with that foundation object.
ECWF_LAST_MODIFIED_ON	In this dynamic process property, provide a timestamp value in the format yyyy-mm-ddThh:mm:ss.sssZ (for example, 2015-01-01T00:00:00.000Z) for the first ever execution of the process. The process then fetches the changes in the Employee Central system as of the provided timestamp value.
employee_class	Comma-delimited list filter (no blank spaces before/after comma) for specifying the employee classes to include in the extract.
first_load_filter_terminated_employees	When first_load_filter_terminated_employees filter is set to 1, it does not send the list of terminated employees during the first load or the first run of the process. When set to 0 it sends the list of terminated employees during the first load.

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Employee Data Replication

PUBLIC **31**

Parameter Name	Description
Go-live_Date	This parameter specifies the Go-live_Date of the integration between SAP SuccessFactors Employee Central and Workforce Software.

> **i Note**
>
> The value for the Go-live_Date must be entered in the format yyyy-MM-dd. Only those records that are effective on or after the Go-live_Date will be sent for all employees. Once you provide a value for the Go-live_Date and execute the integration, you must not make any more changes to the value of this field.
>
> Changes made to the Go-live_Date could create some inconsistencies between SuccessFactors Employee Central and Workforce Software, which will not be handled by this integration.

Before providing a value to the Go-live_Date parameter, ensure that you go through the following prerequisites.

Prerequisites

If an employee is already existing and is active in SAP SuccessFactors Employee Central before the Go-live_Date then it is mandatory that you create a new record in SAP SuccessFactors Employee Central for any one of the following SAP SuccessFactors Employee Central entities having the Start Date of the record equal to the Go-live_Date.

- Job Information
- Compensation Information
- Personal Information
- Address Information

This results in effective employee records being replicated in Workforce Software starting from the Go-live_Date.

If you do not maintain the Go-live_Date, then this integration behaves as before where all employee records from SAP SuccessFactors Employee Central are sent to Workforce Software.

Consider the scenarios listed in the following table if you are providing a value to the Go-live_Date.

32   P U B L I C

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Employee Data Replication

Parameter Name	Description
	Scenarios to consider before providing a value to the Go-live_Date field

If an employee is…	And…	Then…	Which results in…
Active as of the Go-live_Date and already replicated to Workforce Software, later, for the same record, if you terminate the employee with a date which is before the Go-live_Date	You execute this integration	This terminated record will not be sent to Workforce Software which will lead to inconsistencies	Making that employee record invalid in Workforce Software
Who is terminated in SAP SuccessFactors Employee Central before the Go-live_Date, and there exists another record of the same employee that is effective on/beyond the Go-live_Date	You execute this integration	Such record(s) (on/beyond the Go-live_Date) will be sent to Workforce Software	Creating the same records for the employee in Workforce Software
Terminated on the Go-live_Date	You execute this integration for the first time	The respective terminated employee record will be sent to Workforce Software	A valid terminated employee record created in Workforce software

Parameter Name	Description
ignore_modified_date	Set to 1 if you want to run a full load. The default is to run the process in delta mode. After the run, reset to 0 to ensure that only delta changes are processed.
Location	Include the foundation object externalCode if you want to include only employees associated with that foundation object.
pay_group	Include the foundation object externalCode if you want to include only employees associated with that foundation object.
person_id_external	Comma-delimited list filter (no blank spaces before/after comma) for specifying the person_id_externals to include in the extract.

> **i Note**
>
> Generic field values are transferred to workforce only when a generic field name is provided.

3.4.4 Value Mappings

Value mappings are translation tables between the Employee Central picklist entries and the WorkForce Software values.

The following fields have been mapped through a value-mapping project in SAP Cloud Platform Integration:

- Address Type
- Email Address Type
- Employment Status
- FullTime PartTime
- Leave Type
- Phone Types
- TimeZones

You can modify the entries in this project to suit your needs.

In the Developer's Guide for Managing Integration Content, see Developing Value Mappings for general information about value mappings, and Editing the Value Mapping Project for information about editing value mappings.

3.5   Extending the Standard Data Integration

You can customize the current integration solution by mapping additional fields from Employee central to WorkForce Software.

To make changes, you must be familiar with the following topics:

- SAP Cloud Platform Integration process development
  SAP Cloud Platform Integration provides integration tools on the web to model integration flows, configure attributes of the integration flows, and deploy them to the run-time. For more information, see the Developer's Guide for Managing Integration Content.
- Source and Target Datamodels

> ❖ Example
>
> You want to enhance the current process to add additional field mappings in the target destination. Once the source and target fields are identified, you can then accordingly map these fields from Employee Central to WorkForce. To ensure the mapping works correctly or as per expectation, ensure that you provide context to the field mapping.
>
> Let's see a scenario for mapping the originalStartDate field from source to destination:
>
> *Source Field*:
>
> `/ns0:Messages/ns0:Message2/CompoundEmployee/person/snapshot/`
> `employment_information/originalStartDate`
>
> *Destination Field*: `/ns0:Messages/ns0:Message1/ns3:E2G_importEmployees/ns3:payload/`
> `ns2:data/ns2:person/ns2:employee_data/ns2:eff_dated_info/`
>
> `ns2:data/ns2:generic_fields/ns2:generic_field3/ns2:fieldValue`
>
> *FIELD to FIELD mapping*
>
> This is a direct mapping from the source field to the destination field as shown in the image below.
>
>
>
> *Context to entire Generic Fields set mapping*
>
> If you want `ns2:genericFields` to appear only once per `ns2:eff_dated_info/ns2:data`, then you need to map `ns2:genericFields` with `/ns0:Messages/ns0:Message2/CompoundEmployee/`
> `person/snapshot/asOfDate`. The `asOfDate` is a mandatory field for a snapshot and it would appear only once for each snapshot.
>
>
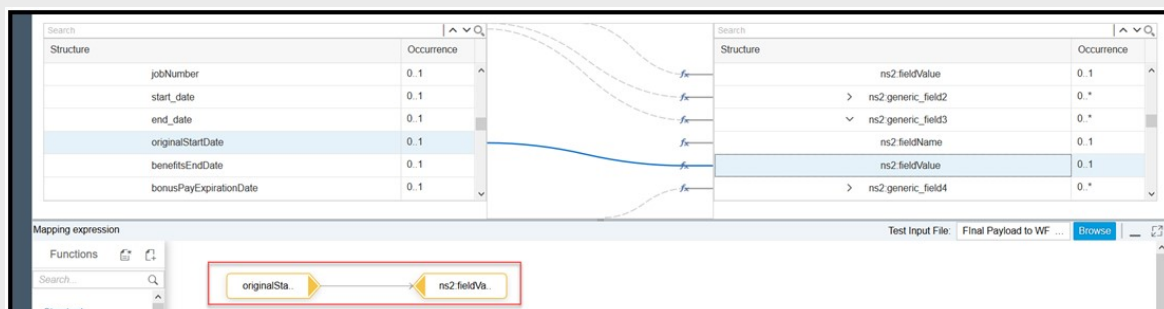
Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Employee Data Replication

PUBLIC   **35**
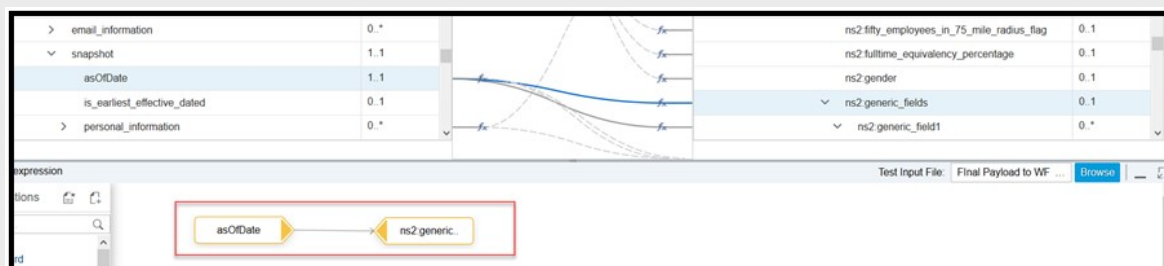
Context to specific Generic Field set mapping

In this scenario we map the specific generic field to the context source field. The destination field mentioned above is mapped from the source field which is under **employment_information** in Compound Employee. Therefore, we map the parent of the source to the parent of the destination field. In this case, we obtain ONE **employment_information** and therefore, with this mapping we would then obtain ONE **generic_field3** at the destination output as shown in the image below.
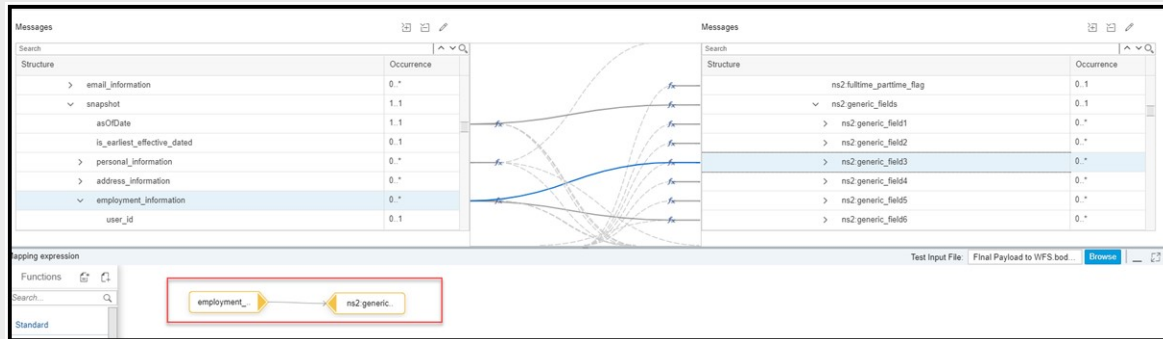
> ⚠ **Caution**
>
> We recommend not enhancing the standard process because any enhancement makes the process custom and decouples it from receiving any further enhancement updates to the standard content, and also because support is provided only for standard integrations.

To deploy and run the Main Integration Process, ensure that the Custom Mapping Extension is already deployed. Follow the deployment steps as stated:

1. Design and Configure both Custom Mapping Extension and Main Integration Process.
2. Deploy the Custom Mapping Extension.

4 Integrating the WorkForce Software UI

You can enable single sign-on (SSO) from the Employee Central UI as part of the integration with WorkForce Software.

4.1 Single Sign-On

This section describes how you can configure a single sign-on (SSO) connection to SAP Time and Attendance Management.

Prerequisites

A Provisioning user for a respective SuccessFactors tenant is needed to maintain the SSO configuration.

4.1.1 Employee Central Certification for WorkForce Software

Contact WorkForce Software for SSO information. WorkForce Software needs the following information from SuccessFactors. This information may be packaged in a metadata file.

Context

If you send the metadata file to WorkForce Software, be sure to replace the entity ID in that file with the correct issuer ID. WorkForce Software uses this information to setup SSO on their side.

- **Issuer ID**
  Steps to Be Performed: In the below link, replace the values in square brackets with the SuccessFactors data center and the company ID and provide it to WorkForce Software for SSO setup.
  https://[SuccessFactors data center server name]/sf/idp-init/sso/company/[company ID]
- **SAML Metadata and Signing Certificate**
  This is the signing X509Certificate for SSO communication and can be taken from the X509Certificate tag of SAML metadata file.
  Steps to Be Performed: In the below link, replace the values in square brackets with the SuccessFactors data center server name and the company ID and execute the link in a browser.
  https://[SuccessFactors data center server name]/idp/samlmetadata?company=[company ID])

Procedure

1. Download and save the file on a local disk. (Executing the above link will download the file.)

2. Open the file in Notepad and remove all data except the information in the X509Certificate tag. (Remove the xml text in red.)

3. Using the Save As feature, save the file with a .cer extension and choose Unicode as the encoding.

   This provides a .cer file that can be opened directly in Microsoft Windows Explorer.

4. To save the certificate in different formats, go to the Details tab in the certificate and choose Copy to File.

   This starts a wizard where you can select the file format before exporting.

5. Save as DER format by selecting *DER encoded binary X.509(.CER)* in the *Certificate Export Wizard*.

6. Repeat the steps and save as *Base64 encoded X.509(.CER)* format in the *Certificate Export Wizard*.

   At the end of this step, you will have two certificate files.

   User-Identifying Attributes: The user ID is in the name ID element of the SAML subject, and the company ID is in the companyid attribute in the attribute statement, as shown in the following example. Note that the values root and HRTech1 are example values and must be replaced with the correct data.

> **i Note**
>
> Send the above information (issuer ID, SAML metadata and signing certificate, and user-identifying attributes) to WorkForce Software to setup SSO on their side.

4.1.2 Configuration of Employee Central Identity Provider for WorkForce Software

Prerequisites

Employee Central needs the following information from WorkForce Software:

- Assertion consumer service
- Audience (optional)
- Relay state value (optional)

Context

Set up the SSO connection as follows:

Procedure

1. In Provisioning, select the company and choose Authorized SP Assertion Consumer Service Settings.
2. Enter the assertion consumer service URL and audience string that you received from WorkForce Software.
3. Enter *wfs* as the mapping key.

4.1.3 Configure 'Time and Attendance' Link for WorkForce Software

Context

Activate and configure the link to WorkForce Software as follows:

Procedure

1. In Provisioning, navigate to ▌▶ *Company Settings* ❯ *Employee Central* ▌ and select the *Enable Employee Central V2 timesheets* link checkbox.
2. Enter the target URL:

   https://[SuccessFactors data center server name]/sf/idp-init/sso/wfs?
   saml2=true&RelayState=[RelayStateValue]

   > **i Note**
   >
   > The values in square brackets are placeholders and must be replaced by the correct data.

5 Time Data Replication

This chapter describes how to export time data from SAP Time and Attendance Management to Employee Central Payroll.

It includes the following major steps:

1. Time data is extracted from SAP Time and Attendance Management to an XML file and saved in an SFTP location.
2. SAP Cloud Platform Integration accesses this SFTP location and transmits the time data to Employee Central Payroll through a web service call.
3. When the XML file arrives in Employee Central Payroll, it is automatically converted to an IDoc and can be seen in the IDoc queue.
4. Report RBDAPP01 posts records from the IDoc to the following SAP interface tables: PTEX2000 (Absences), PTEX2010 (Remuneration Wage Types).
5. Report RPTEXTPT moves the data from the interface tables to the respective infotype tables PA2001 (Absence Data) and PA2010 (Wage Types).

> **i Note**
>
> The specifications apply to the version for the country United States. If a customer implements a version for another country, some adjustments may be necessary.
>
> For more information on configuring time management in Employee Central Payroll, see Personnel Time Management (PT) on SAP Help Portal.

5.1 Utility Report

From May 2014 release onwards, the utility report to clear previous imports is delivered as standard in add-on SFIECPEP 100. We recommend using this standard utility report instead of the custom solution delivered in SAP Note 1915630.

Report RPDELPTINT Delete Time Data from Interface Tables for External Providers

Transaction PT_DEL_INT

Prerequisites

The following add-on is a prerequisite for using the standard utility report:

SFIECPEP 100 SuccessFactors Employee Central Payroll Third-Party Data Integration Tool

Following are some of the features of the utility program and how you can use it to clean up your system and make it ready to import the re-export from the third-party time and labor management (TLM) system.

- A given batch of time data has a unique identifier. This unique identifier is stored in field CUSTOMER_FIELD of the IDoc segment. For any errors while importing time data, note down this CUSTOMER_FIELD. You need to specify this CUSTOMER_FIELD when executing the undo/delete utility report.
- If the batch inserted time data into employee master data, the utility will delete it. If the batch deleted time data from employee master data, the utility will restore the deleted data.
- The utility report will also delete the segments from the staging area of PTEX2010, PTEX2000, and PTEXDIR.
- You can execute the utility report in test run mode. In this mode, the system simulates the actual execution and displays the result. You can also select a set of employees for simulation.
- In a live run (the Test Run checkbox is not selected), you must process the delete report for the complete batch. You do this by executing the report with a given batch number in the selection parameter. Part delete is not allowed.
- The utility report has built-in safety mechanisms to ensure system consistency. However, there is also a force delete mode to ignore such safety. This mode is useful if the system is in an inconsistent state and you want to delete a batch forcefully.

5.2 Absence Data

SAP Time and Attendance Management Field	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	EC Payroll Field
EXTSYSTEM*	Partner system	As configured in "Receiver logical system of third-party time management system", e.g. "WORKFORCE"	yes	No	EXTDOCUMENTNO
EXTAPPLICATION*	External application	"EXT", as defined in "Checking External Application Key"	yes	No	EXTAPPLICATION*
EXTDOCUMENTNO	Unique IDoc Document number	Required	yes	No	EXTDOCUMENTNO
REVERSED	Reversal Indicator - required for cancellation	Optional	yes	No	REVERSED
EMPLOYEENUMBER	Employee Payroll ID as in EC Payroll (PERNR)	Required	yes	No	EMPLOYEENUMBER

SAP Time and Attendance Management Field	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	EC Payroll Field
FROM_DATE	Start date of absence (and also end date, as only one day absences are allowed)	Required	No	No	TO_DATE
FROM_DATE	Start date of absence (and also end date, as only one day absences are allowed)	Required	Yes	No	FROM_DATE
ABS_ATT_TYPE	Absence/ attendance code	Required	Yes	No	ABS_ATT_TYPE
START_TIME	Start time of absence	Optional	Yes	No	START_TIME
END_TIME	End time of absence	Optional	Yes	No	END_TIME
ABS_ATT_HOURS	Absence/ attendance hours	Optional	Yes	No	ABS_ATT_HOURS
COSTCENTER	Cost Center (for overriding default cost center assignment)	Optional	Yes	No	COSTCENTER
COMP_CODE	Company Code	Optional	Yes	No	COMP_CODE
CUSTOMER_FIELD	Unique Batch ID for a given batch of exported time data	Required	Yes	No	CUSTOMER_FIELD

* These fields must be set using the process parameter in the middleware.

5.3 Remuneration Data

The following fields are considered during the replication:

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Time Data Replication

PUBLIC **43**

SAP Time and Attendance Management Field	Description	Required/Optional	Code Mapping Required?	Value Mapping Required?	EC Payroll Field
EXTSYSTEM*	Partner system	As configured in "Receiver logical system of third-party time management system", e.g. "WORKFORCE"	yes	No	EXTDOCUMENTNO
EXTAPPLICATION*	External application	"EXT", as defined in "Checking External Application Key"	yes	No	EXTAPPLICATION*
EXTDOCUMENTNO	Unique IDoc Document number	Required	yes	No	EXTDOCUMENTNO
REVERSED	Reversal Indicator - required for cancellation	Optional	yes	No	REVERSED
EMPLOYEENUMBER	Employee Payroll ID as in EC Payroll (PERNR)	Required	yes	No	EMPLOYEENUMBER
VALIDITYDATE	Date to which time data belongs	Required	No	No	VALIDITYDATE
WAGETYPE	Wage type code as in EC Payroll	Required	Yes	No	WAGETYPE
NO_OF_HOURS	Number of hours	Optional	Yes	No	NO_OF_HOURS
NUMBER	Rate	Optional	Yes	No	NUMBER
AMOUNT	Amount	Optional	Yes	No	AMOUNT
CURRENCY	Absence/ attendance hours	Optional	Yes	No	CURRENCY
COSTCENTER	Cost Center (for overriding default cost center assignment)	Optional	Yes	No	COSTCENTER
COMP_CODE	Company Code	Optional	Yes	No	COMP_CODE
CUSTOMER_FIELD	Unique Batch ID for a given batch of exported time data	Required	Yes	No	CUSTOMER_FIELD

* These fields must be set using the process parameter in the middleware.

5.4 Getting Access to the Solutions

SAP Cloud Platform Integration Spaces is a Web-based application that helps you to access the integration content available for a particular tenant on an on-demand integration infrastructure.

In SAP Cloud Platform Integration Spaces, you can access integration packages with artifacts such as value mappings, integration flows, and files. For more information, see Viewing Integration Flow Configurations in the *Developer's Guide for Managing Integration Content*.

You can edit and configure a package as follows:

1. On the Discover tab, click the integration package to be configured.
2. Choose *Copy*.
   On the Design tab, you should now find the copied package.

To configure and edit the package, follow Editing Integration Flow Configurations in the SAP HANA Cloud documentation.

5.4.1 Common Configuration Steps

5.4.1.1 SAP Credential Deployment

To deploy the following artifacts, see Deploying and Editing a User Credentials Artifact in the Operations Guide for SAP Cloud Platform Integration.

Artifact	Description
SuccessFactors EC Credentials	These credentials are used to connect to the SuccessFactors Employee Central system
SuccessFactors EC Payroll Credentials	These credentials are used to connect to the SuccessFactors Employee Central Payroll system
SAP SFTP Server Credentials	These credentials are used to connect to the SuccessFactors Employee Central Payroll system
WorkForce SFTP Server Credentials	These credentials are used to connect to the WorkForce SFTP server

5.4.1.2 Value Mapping Maintenance

A value mapping project is delivered along with the iFlows in this integration. It must be deployed in the customer landscape so that the iFlows can refer to the value mappings.

For information about using and editing value mappings, see the *Developer's Guide for Managing Integration Content*.

5.4.2 Setting Up the Standard Data Integration

In the Discover section, click the *SuccessFactors Employee Central with Third Party Time Vendor-WorkForce Software(WFS)* integration process and configure the *Packaged Integration - WFS to SF EC Payroll* integration flow.

Packaged Integration - SF EC to WFS Standard Integration which transfers relevant employee data from SuccessFactors Employee Central required for SAP Time and Attendance Management by WorkForce Software.	Integration Flow	1.1.4	
Packaged Integration - WFS to SF EC Payroll Standard Integration which transfers time management data from WorkForce Software to SuccessFactors Employee Central.	Integration Flow	1.0.1	
Packaged ValueMapping - SF EC to WFS - Address Types Maps Address Types values from Employee Central to corresponding values in WorkForce Software.	Value Mapping	1.0.0	
Packaged ValueMapping - SF EC to WFS - Email Address Types Maps Email Address Types values from Employee Central to corresponding values in WorkForce Software.	Value Mapping	1.0.0	
Packaged ValueMapping - SF EC to WFS - Employee Type Maps Employee Type values from Employee Central to corresponding values in WorkForce Software.	Value Mapping	1.0.0	
Packaged ValueMapping - SF EC to WFS - Employment Status Maps Employee Status values from Employee Central to corresponding values in WorkForce Software.	Value Mapping	1.0.0	
Packaged ValueMapping - SF EC to WFS - FullTime PartTime Maps FullTime PartTime values from Employee Central to corresponding values in WorkForce Software.	Value Mapping	1.0.0	
Packaged ValueMapping - SF EC to WFS - Leave Type Maps Leave Type values from Employee Central to corresponding values in WorkForce Software.	Value Mapping	1.0.0	
Packaged ValueMapping - SF EC to WFS - Phone Types Maps phone types values from Employee Central to corresponding values in WorkForce Software.	Value Mapping	1.0.0	
Packaged ValueMapping - SF EC to WFS - TimeZones Maps TimeZones values from Employee Central to corresponding values in WorkForce Software.	Value Mapping	1.0.0	

5.4.2.1   Sender Settings

Field	Description
Source	
Directory	Directory path on the SFTP server where the input file is stored, for example, /input
File Name	Name of the input file along with the extension, for example, payroll-export.txt
Address	SFTP server host URL, for example, test.sftp.com

Field	Description
Authentication	Required to authorize a file while accessing it. For Key based authorization select **Public key** and for certificate based select **Username/Password**
User Name	SFTP user name for the above connection
Processing	
Post-Processing	Delete File - To delete a input file from the mentioned path
	Keep File and Mark as Processed in Idempotent Repository - To maintain the mentioned input file and not process it the next time
	Keep File and Process Again - To maintain the input file and process it every time
	Move File -To move the input file to the specified archive directory path
Schedule	
Run Once Schedule on Day Schedule to Recur	→ Tip When testing the integration, we recommend choosing Run Once rather than scheduling it to run.

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Time Data Replication

PUBLIC   **47**

5.4.2.2　Receiver Settings

5.4.2.2.1　EC_Payroll

This receiver helps you to connect to the SuccessFactors Employee Central Payroll system.

Field	Description
Address	Employee Central Payroll connection URL
Credential Name	Name of the artifact that was deployed in Common Configuration Steps

5.4.2.2.2　System_Values_Missing_Mail

This receiver helps you to send the resulting file of the process to a directory at the SFTP location.

Field	Description
Address	This is the SMTP server address
From	This is the SMTP server address
To	This is the address of the recipient of the mail generated by the process

5.4.2.2.3   Success_Notification_Mail

This receiver helps you to log the failing employees from the payload and send the relevant information to a directory at the SFTP location.

Field	Description
Address	This is the SMTP server address
From	This is the From address of the SMTP server
To	This is the address of the recipient of the mail generated by the process
Subject	This is the subject of the Success_Notification_Mail

Field	Description
Mail Body	This is the description of the Success_Notification_Mail

5.4.2.2.4   Exception_Mail

This receiver helps you to capture the records where mandatory fields are missing from the payload, and to send the relevant information to a directory at the SFTP location.

Field	Description
Credential Name	Name of artifact that was deployed in SAP Credential Deployment [page 45].
Address	This is the Mail Server address followed by the port number. ❖ Example *smtp.postmarkapp.com:587* where 587 is the port number for SMTP. This port number will be different for all other Mail Servers.
From	This is the From address of the SMTP server

Field	Description
To	This is the address of the recipient of the mail generated by the process
Subject	This is the subject of the Exception_Mail
Mail Body	This is the description of the Exception_Mail

5.4.2.2.5   Parameters

Parameter Name	Description
Partner Number of Sender	Logical system of the sender system configured in transaction BD64
Client Number of Receiver	In transaction SM30, display table T000. Enter the client number that you want to use, for example, 502
Partner Type of Receiver	Partner type of the receiver system configured in the SAP ERP system
Partner Type of Sender	Partner type of the sender system configured in the SAP ERP system
Port Number of Receiver	Port number of the receiver logical system
Is_Mail_Req	Boolean type 1 allows you to send the mail to the configured email and Boolean value 0 does not allow
Port Number of Sender	Port number of the sender logical system

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Time Data Replication

PUBLIC   **51**

Parameter Name	Description
Partner Number of Receiver	Logical system of the receiver system configured in transaction BD64

5.5 More About Data Replication

General

- SAP Time and Attendance Management will be the system of record for quotas/banks to facilitate accrual and usage calculations
- The Inbound data from SAP Time and Attendance Management to Employee Central Payroll can contain cost center related information. Providing cost center in the inbound allows you to make use of cost override feature on Employee Central Payroll. However, there is no standard cost center information inbound available for SAP Time and Attendance Management. It is assumed that customer takes care of this himself, if he wants to make use of Cost override features.

Absence Data

- Absence quota payouts will be determined by the administrator in the time system (including accrual payouts at termination).
- If you use integration with Infotype 2001, be aware that regardless of the absence hours that are sent from the WorkForce Software, those hours are calculated again in SAP ERP Time Management based on the absence type configuration and the employee's work schedule in Infotype 0007. This will not be the case, when you use integration with Infotype 2010 for absence hours. You need to decide which infotype to use depending on your business needs and requirements.
- If correct absence hours are relevant for Employee Central Payroll and cannot be handled using the remuneration infotype, then information on planned working time and public holidays must be held in sync with the planned working time in WorkForce Software. You must configure the absence type calculation according to the customer's business requirements. Absences records must not be longer than a day. If they are longer, they need to split up into multiple absences, each only one a day long. For example, if there is a 4-days absence, it needs to be split into four records where each absence lasts only one day.
- Absence codes sent to Employee Central Payroll may trigger business logic checks. We recommend that you select absence codes that have minimum or no business checks in Employee Central Payroll (for example, general absence with no collision checks and input checks). Absence codes which trigger business checks may require extensive configuration in Employee Central Payroll.

Remuneration Data

- Wage types are always expected to contain the number of hours and rate of pay. You can skip the rate if you want SAP to calculate the rate.
- FLSA rates are calculated, by default, at the SAP Time and Attendance Management. Customers need to use the custom fields for bonus data in SuccessFactors and this data need to be transmitted to SAP Time and Attendance Management so that it calculates FLSA rates accurately. If customers want to use the FLSA rate calculated by Employee Central Payroll, they need to switch off the FLSA rate calculation in SAP Time and Attendance Management and instead have to configure the FLSA rate calculation in Employee Central Payroll. For more information, see the UTR0 subschema documentation in the Employee Central Payroll Handbook.
- Wages are added to either the bonus pay component or the basic pay component based on the configuration in Employee Central Payroll. This influences subsequent payroll calculations.
- For premium pay, there are two scenarios possible:
    - WorkForce Software sends wage types with the final rate of payment.
      In this case, you must change the configuration of wage types in Employee Central Payroll such that there is no further premium applied on the rate supplied by WorkForce Software.
    - WorkForce Software is configured to send the regular rate.
      In this case, the Employee Central Payroll configuration can contain premium rates.
- When an amendment is made, it results in two records sent from WorkForce Software to Employee Central Payroll. These are:
    - A new record which replaces the old record.
    - The record that needs to be cancelled. The cancellation record must contain all details that were previously sent (for example, amount and rate).
- We recommend supplying cost center information only for override. If supplied in every case, it is assumed that the third-party provider takes care of sending amendments to Employee Central Payroll even if only the cost center changed for employees (for example, the cost center of an employee changed for the last period, but the time data did not change).
- For cost center overrides, only information for cost center and company code fields is exposed from Employee Central Payroll.
- SAP Time and Attendance Management needs to know the cost center/company codes that are valid in Employee Central Payroll. This needs to be achieved by a custom integration. There is no standard integration available for this purpose.

Functions Supported by the Payroll Export

- Cancellation / deletion of absences previously exported to SAP Payroll
- Cancellation / deletion of wage types previously exported to SAP Payroll
- Import of wage types into Employee Central Payroll = Infotype 2010 with valid date and amount of hours
- Import of Absences into Employee Central Payroll = Infotype 2001 with valid date and hours
- In case of terminated employees, the time data after the termination date is not processed. These cases must be handled directly in Employee Central Payroll.
- Absence quota payments will have to be determined by the administrator in the time system (including accrual payouts at termination).
- In case of errors during the import of a particular batch of time data, the administrator needs to delete the complete batch. To achieve this, the batch number must be entered as a selection parameter when the Delete

report is executed. Partial deletion is not allowed. For details about the Delete report, see the Troubleshooting section.

- Time substitutions are out of scope.

5.6 Configuring the Integration between SAP Time and Attendance Management and Employee Central Payroll

To enable the integration between SAP Time and Attendance Management and Employee Central Payroll, you have to perform the following steps:

- Configure Absence Types
- Configure Remuneration Wage Types
- Set up the ALE Scenario for IDoc

5.6.1 Configuring Absence Types

Context

> i Note
>
> If you don't use Time Management in SAP ERP, ensure that time-specific checks such as Input Checks or Quota Deduction Assignments are deactivated.

For more information, see *Personnel Time Management (PT)* on SAP Help Portal.

Procedure

1. In Customizing for *Time Management*, choose *Time Data Recording and Administration AbsencesAbsence CatalogDefine Absence Types*.
2. Create only absence types that are relevant for payroll. For more information, see the documentation for the Customizing activity.
3. In SM31, enter T554S and click *Maintain*. Double-click each payroll-relevant entry in the table and make the following settings for each:
   - In the *Input Checks* section, ensure the fields are either blank or unchecked. For *minimum duration*, enter 001 and for *maximum duration*, enter 999.
   - In the *Counting and Quota Deduction* section, uncheck everything except *Grpg att./abs. for counting (01)*. Enter a counting rule.

○ In the *Payment Data* section, enter an *Absence Valuation Rule* and *Abs./Att cat. for Payroll* as required by payroll calculation depending on the business demands of the absence valuation in payroll.

⁂ Example

Example SAP absence types are listed in the following table. As mentioned above, you can select absence types that have no checks. If you plan to select the other absence types, make sure that you deactivate time-specific checks during configuration.

Absence Code	Description	Screens Used (and Subsequent Business Logic Applied)	Collision Checks	Input Checks	Unit of Measure
0100	Paid Leave	Quota Deduction	Yes	None	Calendar Days
0140	Paid Absence	General absence	None	End Date is required. Error if start and end date is an off day; or if the entire period is an off period.	Calendar Days
0150	Unpaid Absence	General absence	None	None	Calendar Days
0200	Illness	Work Incapacity	None	Error - if absence is on a holiday	Calendar Days
0201	Short Term Disability	Work Incapacity	None	None	Calendar Days
0202	Long Term Disability	General absence	None	None	Calendar Days
0215	Comp Time for Overtime	Quota Deduction	Yes	End Date is required	Calendar Days
0220	Floating Holiday	Quota Deduction	Yes	End Date is required	Calendar Days
0230	Personal time	General absence	None	End Date is required. Error if start and end date is an off day; or if the entire period is an off period.	Calendar Days
0250	Occ. Inj/Worker's Comp	General absence	None	None	Calendar Days
0500	Maternity protection	Maternity Protection	Yes	None	Calendar Days

Absence Code	Description	Screens Used (and Subsequent Business Logic Applied)	Collision Checks	Input Checks	Unit of Measure
0510	Family care leave	Maternity Protection	Yes	None	Calendar Days
0520	Jury Duty-Quota	General absence	None	None	Calendar Days
0530	Bereavement Leave	General absence	None	None	Calendar Days
0650	Military/non-mil.service	Military Service	Yes	None	Calendar Days
0700	Strike/Lockout	General absence	Yes	None	Calendar Days

5.6.2 Configuring Remuneration Wage Types

Context

Procedure

1. In Customizing for *Personnel Management*, choose ▶ *Personnel Administration* ❯ *Payroll Data* ❯ *Employee Remuneration Information* ❯ *Wage Types* ❯ *Check Wage Type Characteristics* ❯.

2. If a wage type already exists that fulfills the customer's requirements, use it.

    If not, do the following:

    1. Select *Personnel Management*, choose ▶ *Personnel Administration* ❯ *Payroll Data* ❯ *Employee Remuneration Information* ❯ *Wage Types* ❯ *Check Wage Type Catalog* ❯.
    2. Select copy and enter a country.
    3. Select wage type and click *Copy*.

3. Adapt the wage type, if necessary, so that it exactly matches to the wage types that exist in WorkForce Software. In the field Input combination, enter *X* for both *Amount* and *Number/unit*. In Number/unit section, choose a relevant entry for *Time unit/mass*, for example, *Hours*.

    For other sections, see the field documentation for more information.

4. In SM31, enter V_512W_O and click *Maintain*. Choose the country grouping. Double-click the wage type and maintain the table according to the payroll requirements of the customer.

⬡ Example

Example SAP remuneration wage types are listed in the following table.

M800	Regular working time	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M801	Lump sum period hours	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M802	On Call/Standby	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M803	Training - internal	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M804	Training - external	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M805	Overtime paid 1.0	- Either amount or number/unit - Unit of measure: Hours - For basic overtime hours - Add to total

M806	Overtime paid 1.5	- Either amount or number/unit
		- Unit of measure: Hours
		- For for basic overtime hours
		- multiplied by 150%
		- Add to total
M807	Overtime paid 2.0	- Either amount or number/unit
		- Unit of measure: Hours
		- For basic overtime hours
		- multiplied by 200%
		- Add to total
M810	Sunday premium	- Either amount or number/unit
		- Unit of measure: Hours
		- multiplied by 25%
		- Bonus wage type
		- Add to total
M811	Holiday premium	- Either amount or number/unit
		- Unit of measure: Hours
		- multiplied by 15%
		- Bonus wage type
		- Add to total
M812	Evening Shift premium	- Either amount or number/unit
		- Unit of measure: Hours
		- multiplied by 5%
		- Bonus wage type
		- Add to total
M813	Night Shift premium	- Either amount or number/unit
		- Unit of measure: Hours
		- multiplied by 10%
		- Bonus wage type
		- Add to total

M814	Weekend Shift premium	- Either amount or number/unit - Unit of measure: Hours - multiplied by 20% - Bonus wage type - Add to total
M815	Call In pay	- Either amount or number/unit - Unit of measure: Hours - Bonus wage type - Add to total
M850	Holiday Pay	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M851	Vacation Pay	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M852	Sick pay	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M853	Comp time taken	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M854	Jury duty	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Time Data Replication

PUBLIC 59

M855	Bereavement leave	- Either amount or number/unit
		- Unit of measure: Hours
		- For basic hours
		- Add to total
M858	Family Medical Leave	- Either amount or number/unit
		- Unit of measure: Hours
		- For basic hours
		- Add to total
M859	Maternity leave	- Either amount or number/unit
		- Unit of measure: Hours
		- For basic hours
		- Add to total
M860	Short term disability	- Either amount or number/unit
		- Unit of measure: Hours
		- For basic hours
		- Add to total
M864	Other Paid Absence	- Either amount or number/unit
		- Unit of measure: Hours
		- For basic hours
		- Add to total
ML01	Piecework time	- Either amount or number/unit
		- Unit of measure: Pieces
		- For basic hours
		- Add to total
TD00	Direct tip	- Amount essential, no number/unit
		- For bonus
		- Add to total
TGS0	Gross sales	- Amount essential, no number/unit
		- For bonus
		- Add to total

60 PUBLIC

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Time Data Replication

TI00	Indirect tip	- Amount essential, no number/unit
		- For bonus
		- Add to total
TO01	Overtime hours - tips	- No amount, number/unit essential
		- For bonus
		- Add to total
TO02	Overtime hours - tips	- No amount, number/unit essential
		- For bonus
		- Add to total
TR01	Regular hours - tips	- No amount, number/unit essential
		- For bonus
		- Add to total
TR02	Regular hours - tips	- No amount, number/unit essential
		- For bonus
		- Add to total

5.6.3 Configuring Technical Communication User

To customize integration, a system user (type B user) with required permissions must be created allowing inbound communication in the relevant Employee Central Payroll client. This allows the middleware to successfully communicate with the payroll system. For your convenience, we have created a template role you can assign to this user: SAP_HR_PA_EC_EE_REPL. It is strongly recommend that you create the user using the template role.

Also you have to make sure to mark this user as 'customer' user by assigning the user group "customer" to the user via SU01 – else the user will be deleted automatically.

> ⚠ Caution
>
> If the customer has already been using this template role since b1302 (February 2013 release), the customer must copy this template again and assign it to the user to ensure that Date Specifications, which are new to b1308 (August 2013 release), are replicated as well.
>
> For more information on creating users see Creating a Technical User in the SAP Library.

5.6.4 Setting Up ALE Scenario for IDoc

5.6.4.1   Defining a Logical System

You must create a logical system that represents the third-party time management system. This will send the absence and remuneration data to the SAP system.

Context

> **i Note**
>
> Logical systems are defined as cross-client systems. You must maintain the logical system in a client in which cross-client customizations are allowed.
>
> For more information, see Customizing for ▌▶ *SAP NetWeaver* ❯ *Application Server* ❯ ☐ *IDoc Interface /*
> *Application Link Enabling (ALE)* ❯ *Basic Settings* ❯ *Define Logical System* ❯ *Logical Systems* ▐.

Procedure

1. In transaction BD54, choose ▌▶ *Edit* ❯ *New Entries* ▐.
2. Create a logical system that identifies the third-party time management system, as shown in the following table:

Field	Entry
Logical System	Enter the logical system name of the third-party time management system, for example, WORKFORCE.
Description	Enter a descriptive name.

5.6.4.2   Identifying the SAP System

Procedure

1. In transaction SM30, display table T000.
2. Double-click the client you want to display (for example, 850).
3. Note the logical system specified here (example: XXXCLNT850) since this will be the system that receives the IDoc.

5.6.4.3 Maintain Distribution Model

You must define a distribution model for each system that receives data from SAP ERP. Distribution models describe the Application Link Enabling (ALE) message flows between logical systems.

Context

The distribution model consists of separate model views in which all the associated, cross-system message flows in your organization can be defined. These views must be distributed to the receiving systems. In the individual message flows, you can define filters to determine which data is transferred to which receiving system. The distribution model controls this distribution.

For more information, see Customizing for ❚▶ *SAP NetWeaver* ❯ *Application Server* ❯ *IDoc Interface / Application Link Enabling (ALE)* ❯ *Modelling and Implementing Business Processes* ❯ *Maintain Distribution Model and Distribute Views* ❯.

Procedure

1. In transaction BD64, switch to edit mode.
2. Choose *Create Model View*.
3. Create a model view as shown in the following table:

Field	Value
Short text	For example, Employee Central Payroll – Third-Party Time Management System
Technical Name	For example, CP_WF_INT Maximum 10 characters
Start Date	<current date>
End Data	31.12.9999

4. From the Distribution Model list, select the model you just created and choose *Add Message Type*.

Fields and Values for hrsm_d

Field	Value	Example
Sender	Logical system of SAP ERP <system ID>CLNT<client number>	XXXCLNT850

Field	Value	Example
Receiver	Receiver logical system of third-party time management system. Enter system from the Logical System step.	WORKFORCE
Message Type	hrsm_d	

5. Select *Add BAPI*.

6. For the following BAPIs, enter sender / receiver port as above:

   ○ Choose PTMgrExtAttAbs and then choose Method: InsertWithCostAssignment
   ○ Choose PTMgrExtRemunSpec and then choose Method: InsertWithCostAssignment

7. Save your entries.

5.6.4.4   Checking and Registering IDoc Service

Context

Procedure

1. To check if the service /sap/bc/srt/idoc (Inbound SOAP for IDoc) is active, proceed as follows:

   1. In transaction SICF, enter /sap/bc/srt/idoc in the *Service Path* field. [Right-click IDoc, click test service, Web browser opens, the URL shown is the URL needed for the xml end point.]

      > **i Note**
      >
      > This step is required just to capture the URL endpoint. In case an error message is displayed in your browser, you can ignore the error and just copy the URL for your configuration later.

   2. Choose *Execute*.

   If the service is displayed in gray, it is inactive. To activate the service, right-click the service name and, from the context menu, choose *Activate Service*.

2. To register the service, proceed as follows::

   1. In transaction SRTIDOC, select the *Register Service* checkbox.
   2. In the *Service Attributes* section, enter the parameters:

Parameter	Value
URI SOAP Application	urn:sap-com:soap:runtime:application:idoc
Name of Web Service Definition	GENERIC
Call Address (ICF Path)	/sap/bc/srt/idoc
Number of Virtual Host	Leave empty

3. Choose *Execute*.

5.6.4.5 Maintain Partner Profile - Logical System (LS)

This section describes how to configure partner profiles so that data is sent immediately.

Context

For more information, see ▶ *Customizing for SAP NetWeaver* ❯ *Application Server* ❯ *IDoc Interface / Application Link Enabling (ALE)* ❯ ❯ *Modelling and Implementing Business Processes* ❯ *Partner Profiles* ▶.

Procedure

1. In transaction WE20, select *Partner Type LS* and select *Create*.
2. Create a partner profile, as shown in the following table:

Field	Value	Example
Partner No.	Enter the logical system name	
Partner Type	LS (Logical System)	
Type	Organizational Unit or User (O or US)	
Agent	Enter the job (person or group of persons) to be notified in case of error	50010120
Language	EN	

3. Save your entries.
4. Click the *Add Row* icon to define the inbound parameters for the message type HRSM_D.

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Time Data Replication

PUBLIC   **65**

Inbound Options tab for Message Type HRSM_D

Field	Value
Message Type	HRSM_D
Process Code	HRSM_D
Processing By Function Module	Trigger Immediately

5. Verify that the *Cancel Processing After Syntax* checkbox is selected.

5.6.4.6 Checking External Application Key

Context

The following procedure helps you in checking the external application key.

Procedure

1. In SM31, enter the table *tptextapp* and click *Maintain*.
2. Verify that there is a corresponding entry in the table for the external application field in the XML. If it is missing, add entry for external application for key EXT.

5.6.4.7 Defining Background Jobs

You must plan several reports to run so the data can be moved from the IDoc to the correct infotype in the system.

Context

Procedure

1. In transaction SM36, click *Job Wizard*.

2. Enter job name. Click *Next*.

3. Choose ABAP Program Step. Click *Next*.

4. Enter report RBDAPP01 as ABAP program name. Click *Next*.

5. Click Start immediately. Click *Next*.

6. Select periodical jobs. Click *Next*.

7. Choose the interval period for how often the report should run, for example, every five minutes.

8. Repeat the job wizard for report RPTEXTPT. The report should not use the option "Transfer/Delete". This is to make sure that the staging area data is retained. This data is required for the Error correction report.

6 Troubleshooting

In exceptional cases, problems can occur with the data that is imported to Employee Central Payroll, for example, if an incorrect wage type code is attached to time entries.

When errors occur, the export report fails and the administrator is notified. The batch needs to be re-exported from SAP Time and Attendance Management and replicated in Employee Central Payroll. The administrator needs to access the SAP Time and Attendance Management and provide the unique batch ID for which the re-export of the time data is required. This unique batch ID is available in the IDoc field CUSTOMER_FIELD.

Before the re-export is started, the previously imported data must be removed from the system. A cleanup is needed for both employee master data and the time data staging tables. From the May 2014 release onwards, we recommend using the standard utility report delivered in add-on SFIECPEP 100 to clean up the previous imports instead of the custom solution delivered through SAP Note *1915630*. For lower releases, SAP Note *1915630* describes a utility report that cleans up this data. Please implement this SAP note in the customer's Employee Central Payroll system. Follow the instructions in the SAP note carefully to execute the report correctly.

7 Error Handling

The prepackaged integration uses EC Execution Manager (XM) monitoring tool to show the errors that may occur during replication. We also recommend using the CPI Monitor for the monitoring of integration.

During the integration if there are any employee records that fail to be processed then this integration captures the specific **person id external** field with the appropriate error message in Execution Manager.

7.1 Setting Permissions for the Execution Manager Dashboard

Execution Manager (XM) is an admin opt-in tool that does not require provisioning to be enabled. To set up role based permissions for your permission group to have access, follow these steps:

Procedure

1. Go to ▶ *Admin Center* ▶ *Manage Permission Roles* ▶ that directs you to the *Permission Role List* page.
2. Select the *Permission Role* group you want to edit that directs you to the *Permission Role Detail* page.
3. Select *Permission* button that opens up the *Permission Settings* box.
4. Go to ▶ *Administrator Permissions* ▶ *Admin Center Permissions* ▶ and select these two options:
   - *Read Execution Manager Events*
   - *Read Execution Manager Event Payload*
5. Select *Done* to save, which direct you back to the *Permission Role Details* page.
6. Select *Save Changes* to finish.

7.2 Using the Execution Manager Dashboard

The *Execution Manager Dashboard* can be accessed either from *oneAdmin* or from *NextGen* UI.

How to Access Execution Manager Dashboard

For *oneAdmin* users, you can access it by entering in *Execution Manager Dashboard* in the *Tool Search* box.

For *NextGen* users, you can access it by clicking on the *See More* link available on the tiles that correspond to *Scheduled Jobs* and *Integration Center*. The *NextGen* Admin page also displays *Scheduled Jobs* and *Integration Center* tiles with data of the last 7 days.
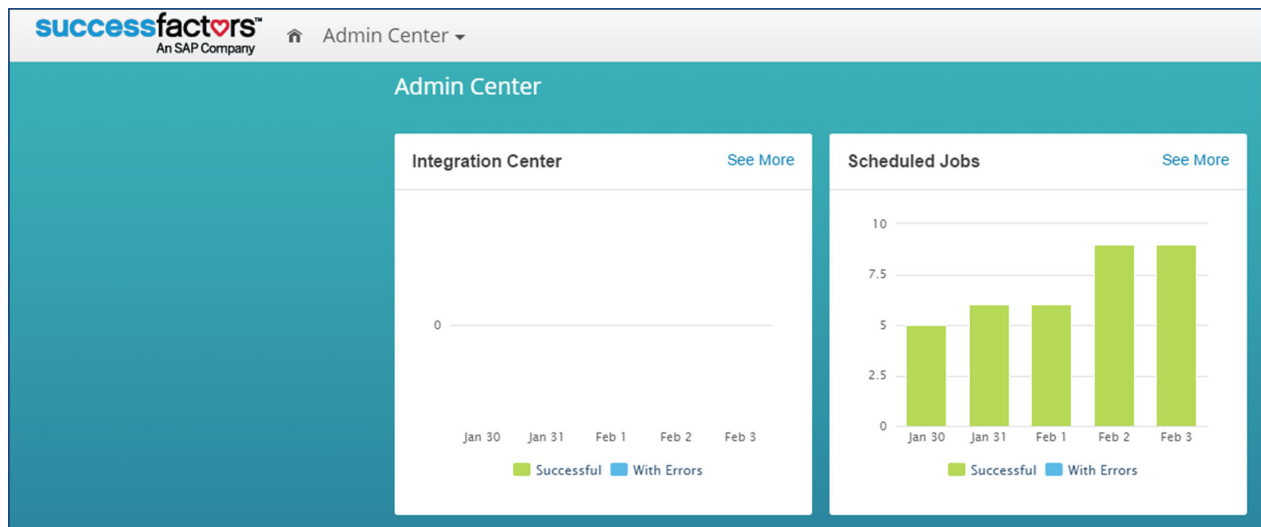
Integration Center and Scheduled Jobs featured

Execution Manager Dashboard

The *Execution Manager Dashboard* supports three tabs:

- Scheduled Jobs
- Integration Center
- Middleware Integrations

Each section has its own set of graphs and a table that displays the data on the graph. The graph shows jobs that fail or been successful. For all integrations using SAP Hana Cloud Integration tool is captured by the *Middleware Integrations* tab.

Using Filters

This dashboard has two filters to narrow down your search results:

1. Timeframe: *Last 24 hours*, *Last 7 days*, *Last 30 days*, and *Custom Date Range*.
2. *All*, *Error*.

Viewing Error Details

Below the *Middleware Integrations* graph, there is a table that displays all processes that match your search criteria. You can see the detailed view of your event by selecting the empty space before the *Process Identifier*.

We have the following Process States:

- Completed_Successfully
- Completed_With_Errors
- Completed_With_Warnings
- FAILED

See screenshot below for more information.
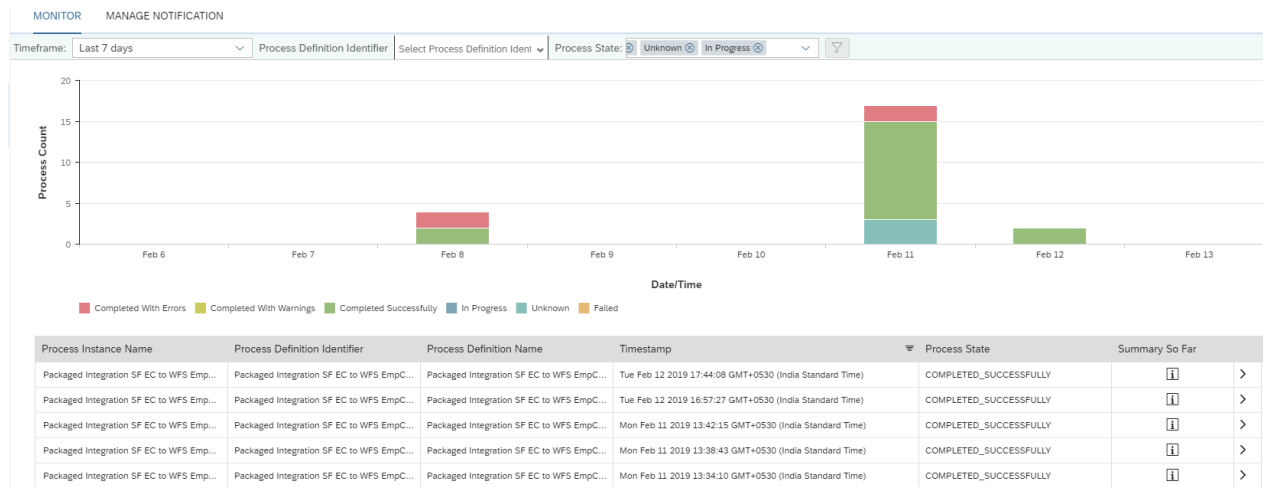
When you select the process you want to view, it directs you to the *Event Details* page.

7.3   Event Details Table

The Event Details is where you can view specifics on your integration event. If your event has any payload, you can download as a text file.

Event Details

Column Header Name	Description
Event Name	The event name is listed here with the date and time stamp when it ran.
Event Description	Description of the event. You can hover over the linked text with your mouse to read the entire description. If you select the linked text, a box opens up with more information about your event.

Integrating SAP SuccessFactors Employee Central with WorkForce Software (SAP Cloud Platform Integration)
Error Handling

PUBLIC   **71**

Column Header Name	Description
Event Type	If your process does not have errors, this label appears: • INFO If your process has errors, these labels appear: • *ERROR: event was not successful.* • *WARNING: this is a warning.* • INFO You can select the *Event Description* for more information about that label.
Created Date	Date that this event was logged.

Example listing error,warning and info on the Event Details Table

Event Name	Event Description	Event Type	Created Date
Integration Execution Status Messages	Some employee records are invalid	Error	Thu Feb 7 2019
Integration Execution Status Messages	Some employees contain warnings	Warning	Thu Feb 7 2019
Send Employee records valid as of Go-live Date ...	Details of employee record(s) not produced effective as of and beyond the Go-live Date	Info	Thu Feb 7 2019

When the Event Description is ...	Then it means that ...
Some employee records are invalid	Some employee records exist without first name/last name/person id external.
Some employees contain warnings	Some employee records contain corrupt data.
Details of employee record(s) not produced effective as of and beyond the Go-live Date	The employee record does not have any effective dated snapshots on or after the Go-live Date and hence this employee is ignored and not sent to Workforce Software.

When you click an Event Description you will get an option to download the payload information. The payload gives you more insight in understanding the error/warning/info in detail.

Important Disclaimers and Legal Information

Hyperlinks

Some links are classified by an icon and/or a mouseover text. These links provide additional information.
About the icons:

- Links with the icon 🏴 : You are entering a Web site that is not hosted by SAP. By using such links, you agree (unless expressly stated otherwise in your agreements with SAP) to this:
  - The content of the linked-to site is not SAP documentation. You may not infer any product claims against SAP based on this information.
  - SAP does not agree or disagree with the content on the linked-to site, nor does SAP warrant the availability and correctness. SAP shall not be liable for any damages caused by the use of such content unless damages have been caused by SAP's gross negligence or willful misconduct.
- Links with the icon 🏴 : You are leaving the documentation for that particular SAP product or service and are entering a SAP-hosted Web site. By using such links, you agree that (unless expressly stated otherwise in your agreements with SAP) you may not infer any product claims against SAP based on this information.

Beta and Other Experimental Features

Experimental features are not part of the officially delivered scope that SAP guarantees for future releases. This means that experimental features may be changed by SAP at any time for any reason without notice. Experimental features are not for productive use. You may not demonstrate, test, examine, evaluate or otherwise use the experimental features in a live operating environment or with data that has not been sufficiently backed up.
The purpose of experimental features is to get feedback early on, allowing customers and partners to influence the future product accordingly. By providing your feedback (e.g. in the SAP Community), you accept that intellectual property rights of the contributions or derivative works shall remain the exclusive property of SAP.

Example Code

Any software coding and/or code snippets are examples. They are not for productive use. The example code is only intended to better explain and visualize the syntax and phrasing rules. SAP does not warrant the correctness and completeness of the example code. SAP shall not be liable for errors or damages caused by the use of example code unless damages have been caused by SAP's gross negligence or willful misconduct.

Gender-Related Language

We try not to use gender-specific word forms and formulations. As appropriate for context and readability, SAP may use masculine word forms to refer to all genders.

THE BEST RUN **SAP**