PUBLIC

SAP Fieldglass and SAP SuccessFactors Employee Central Integration: Solution Design and Implementation Considerations

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Document Details

Name	Objective	Audience
SAP Fieldglass and SAP SuccessFactors Employee Central Integration: Solution Design and Implementation Considerations	This document provides implementation design considerations and configuration guidance to specifically manage contingent workforce and have an established Total Workforce Management process (employees & external workers) for an organization	SAP SuccessFactors Customers: IT and HR professionals. SAP SuccessFactors Implementation Partners: Consultants, solution architects and project managers

Change Log

Version	Date	Description
1.0	12.05.2023	Initial version
1.1	01.06.2023	Typos corrected
1.2	05.10.2023	Software Prerequisites Section added
1.3	22.12.2023	Added an image of worker types
1.4	03.04.2024	Software Pre-requisites added to Sec-4. Added Org Unit replication guidelines and IPS details for user provisioning with Sec- 6.2.1 and removed user upload connector approach.

Supported Releases

Product	Release - From	Release-Valid till
SAP SuccessFactors Employee Central	2305	
SAP Fieldglass	2305	
Cloud Integration iflow	2305	

Contribution

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Implementation Design Principle (IDP) are documents that complement existing implementation handbooks by addressing real-life implementation challenges as well as frequently asked questions. They are best practices verified by the SAP SuccessFactors product in collaboration with our experienced implementation partners and SAP services. IDPs will give structured guidance to address challenges via product configuration and/or provide workarounds to avoid typical implementation pitfalls. Some of the guidance especially technical solutions may require custom development which may require partner support.

The recommendations in this document are based on the features and functionality available up to SAP SuccessFactors and SAP Fieldglass official product release at the time of writing. Future functionality can impact the recommendations provided by this document. We strive to keep these recommendations up-to-date, however, in case you find that a recent functionality has not yet been considered in the latest version of this document, please send an email to SAPSuccessFactorsIDPDoc@sap.com. In addition, the reader is advised to read and familiarize with essential and additional product-related documentation which includes Implementation Guides, SAP Notes, SAP Knowledge Base Articles, and additional assets as referenced in this document, see chapter 8.

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1 TERMINOLOGY

The following table explains some abbreviations used in this document.

Abbreviation/ Term	Description / Definition
EC	Employee Central
ERP	SAP Enterprise Resource Planning, in this document pertains to SAP HCM On-premise system
TWM	Total Workforce Management
SoW	Statement of Work
UI	User Interface
RPA	Robotic Process Automation
SIS	SAP Integration Suite, previously SAP Cloud Integration
VMS	Vendor Management System
HR	Human Resource
APIs	Application Programming Interfaces
BTP	Business Technology Platform
UC	Use Case
WO	Fieldglass Work Order
Custom	When an SAP delivered standard package/object is modified by customer/partner to adapt to customer specifics needs, it results in a custom solution.

2 ABSTRACT

This document provides implementation design considerations and configuration guidance to manage external workers, in particular contingent workforce, implemented using the robust integration between SAP Fieldglass and SAP SuccessFactors Employee Central, the leading solutions to manage employees & external workers, i.e., Total Workforce Management (TWM) of an organization. This document considers the standard packaged integration (based on SAP Integration Suite – SIS) between these systems which forms the basis of the recommendations. In addition, it provides guidance on managing distributed processes, field mapping, and data maintenance along with addressing other frequently asked questions in this integration. The use cases addressed in the document can be utilized by both greenfield and brownfield implementations.

3 INTRODUCTION

SAP SuccessFactors Employee Central integrates with SAP Fieldglass, the vendor management system, responsible for procuring and maintaining the life cycle of different external worker types. A general integration setup of these two solutions allows you to replicate maser data (business unit) from Employee Central to SAP Fieldglass, create Fieldglass job requisition from EC position management, replicate & view contingent worker records from SAP Fieldglass in Employee Central. This setup provides an ability for customers to manage and view their external workforce (non-employees) within an HR Organizational structure provided by SAP SuccessFactors.

It is essential to understand the strategic approach for data maintenance, process distribution, desired mapping setup between SAP SuccessFactors Employee Central and SAP Fieldglass system for successful transmission of required data. Also, being aware of its limitations and ensuring an efficient system design, to meet the core needs of the business. Without a thorough understanding of both these system & recommended design, it is observed that some of the external worker data captured within SAP Fieldglass solution does not

transfer to Employee Central seamlessly or vice versa. This may be because of erroneous mapping, non-standard data transfer or due to mapping of fields which are not supported for data transmission.

The subsequent sections will introduce key solution design for different business scenarios that are commonly implemented at the customer with respect to master data maintenance, its integrations, field mapping, solution workarounds for limitations encountered with standard integration & others to have a robust solution design in place, ensuring seamless data flow of total workforce across both these applications.

4 BUSINESS REQUIREMENT

An organization comprising of employees as well as external workforce, need an appropriate and a reliable system landscape consisting of a Vendor Management System (VMS) for managing end-to-end processes of external workforce and an ability to use Core HR functionality provided by SAP SuccessFactors Employee Central for external workers too. Hence, any information already captured with VMS should flow seamlessly to Employee Central, thereby eliminating manual effort and error prone behaviour. This ensures data consistency between Employee Central and SAP Fieldglass applications.

So, to implement the Total Workforce Management solution from SAP as it is, the customer will have to determine the number of connectors needed in addition to the prerequisites detailed in the below section. SAP will support the customer through these definitions.

Software Prerequisites

- The integration uses SAP SuccessFactors Employee Central OData APIs and SAP Fieldglass SOAP web service.
- Replication of master data from SAP SuccessFactors Employee Central to SAP Fieldglass is highly recommended to synchronize the Position to Requisition and Worker download integrations.
- For a successful integration of all scenarios, the customer needs to activate and use Contingent Workforce Management within the Employee Central configuration.
- Financial master data can only come from SAP S/4HANA for Master Data Integration-based Cost Center and Legal Entity.
- User data should be provisioned from SAP Cloud Identity Services.
- SAP Cloud Integration supports creating and using X.509 Certificate Authentication when connecting with other SAP platforms. Accordingly, X.509 Certification authentication is supported as part of the SAP Fieldglass and SAP SuccessFactors Employee Central position and worker integration product solution. X.509 Certification is used for user authentication in your organization and can be used for Single Sign-On setup within the system landscape and used both for SAP GUI and HTTP access.
- Utilizing a different transfer method outside of SAP BTP or integrating with any non-SAP standard components would mean a custom implementation.

Functional and Technical Prerequisites

When implementing Total Workforce Management three systems come to play namely SAP SuccessFactors Employee Central, SAP BTP and SAP Fieldglass. To avoid changes and modification to the SAP standard iflows on SAP BTP, a set of prerequisites have been identified as mentioned below:

Customer must enable the SAP Fieldglass solution and shall configure the following total workforce management processes:

1. Customer does not need worker data before the SAP Fieldglass work order reach "confirmed" status. The iFlow specifically filters out any record with the work order status that are not confirmed or if the profile worker is not fully approved.

2. Customer does not require any additional native SAP Fieldglass attributes beyond standard mapping or SAP Fieldglass custom fields to be sent to SAP SuccessFactors Employee Central.

3. Customer uses the required SAP Fieldglass native fields, and they are aligned to the corresponding SAP SuccessFactors entity.

Customer must enable the SAP SuccessFactors solution and shall configure the following total workforce management processes:

> 1. Customer will convert SAP SuccessFactors mandatory attributes not captured in SAP Fieldglass to "optional" in the base data model. SuccessFactors API imports use the base data model to determine mandatory fields. Additional SuccessFactors configurations can be applied to keep these fields mandatory for non-Fieldglass workers.

> 2. Customer will set positionID as "optional" in base data model. This is only required if Customer has SAP Fieldglass workers to be hired without a position (Services Procurement or Profile workers).

> 3. Customer has/will enable "Concurrent Employment for Contingent Worker" in SAP SuccessFactors or Customer does not have the requirement to have an SAP Fieldglass worker on multiple active work orders.

> 4. Customer can handle the standard mapping of SAP Fieldglass Identifiers (SAP Fieldglass Work Order ID -> User ID and SAP Fieldglass Security ID or Master Worker ID - > Person ID External) in integrations downstream from SuccessFactors.

> 5. Customer has/will enable Job Information to Position Sync.

In case the Customer is not able to fulfil those prerequisites, their SAP BTP expert or the partner implementing Total Workforce Management will require additional efforts to adapt iflows accordingly.

The following chapters explain different use cases and requirements that comes across in the integration set up between SAP SuccessFactors Employee Central and SAP Fieldglass application.

4.1 Handling Contingent Workers across different systems by understanding Key Identifiers

To support business needs, it is essential to transfer external employees from SAP Fieldglass to SAP Employee Central and further to SAP S/4 HCM. In SAP SuccessFactors Learning (connected to SAP Employee Central) external employees could participate in mandatory learnings & courses required of them, in SAP Employee Central we get a complete view of the workforce that includes employees & external workers. Externals are required in SAP S/4 HCM, if they perform person-related tasks there such as release or approval processes (for example, to Release Purchase Requisition in Material Management, purchase order, and invoice automation which are typically done in SAP S/4 HCM system).

All these products have different data models and requirements for key fields for external worker identification differs. Hence, it's imperative that integration must work with these different identifiers across applications and the customer should leverage standard connectors or integrations in respective application wherever possible.

4.2 Objects Relationship between SAP Fieldglass and Employee Central

From a user perspective, the External Workforce process should be seamless, and data should not need to be updated twice to have different applications in sync. With unsynchronized master data and associations between objects in the two process-integrated systems, risk of problems is significant both from a process and a technical perspective.

4.2.1 Organizational Structure

The organizational structure in SAP SuccessFactors Employee Central and specifically its object validations should be reflected in SAP Fieldglass. Only allowed combinations of Manager, Business Unit, Site, Cost Center, Job Code (or Job Classification) should be permitted in Fieldglass as well, to keep the correct allocations and responsibility in the end-to-end process. Ideally any organizational change in SuccessFactors should be reflected in Fieldglass. Any discrepancies from what is allowed from an Employee Central perspective might result in the Worker integration back from Fieldglass to SuccessFactors fail, and hence delaying the worker replication in SuccessFactors and other downstream systems until correction is done of information in the source system. This is a case for any of 'Worker type' that needs to be sent through the worker download integration to Employee Central.

4.2.2 Position

In the end-to-end scenario when using Employee Central and Fieldglass for Contingent Workforce, the position is created in Employee Central and if the decision is to externally engage a resource, a Job Posting is created in Fieldglass. From a business perspective there is no reason to start the process from scratch in Fieldglass if Employee Central is used within the organization. All the necessary open position information has already been entered in SuccessFactors, and the same position should be filled with an individual for onboarding activities at a later stage of the process. As a position approval is normally occurring in Employee Central to secure the headcount, the Fieldglass Job Posting approvals can be limited to those that have financial impact, i.e., mainly for requested rates for external workers as provided by suppliers to the hiring manager.

In case there is no standard position integration in place, the object relationships in Fieldglass need to be accurate to secure the worker download and to have a successful import of external worker into Employee Central.

4.2.3 Job

Job Classifications should be in sync between Employee Central and Fieldglass to ensure that a position in Employee Central corresponds to a Job Posting Template in Fieldglass. It is also preferred to have common job role definitions for the entire workforce, that are managed from HR. There are market areas where the internal and the external role descriptions cannot be equal, and mappings between internal and external role titles must be supported without too heavy future maintenance.

For different regions or categories, it needs to be possible to define different Job Posting Templates as there can be differences both from a rate card, a supplier distribution but also from a template content perspective, depending on where in the organization a resource is requested.

There is no standard integration provided by SAP for transferring Jobs in Employee Central to Job Posting Templates in Fieldglass, which increase the risk of not having the two systems synchronized. Job Posing Templates have specific procurement data that are not relevant to SuccessFactors, but there are also many objects related to the Jobs and Job Posting Templates that are maintained in both systems.

4.3 Handling seamless User Experience across Systems

The target is to have end-to-end processes working in a seamless way between the involved systems namely SAP Fieldglass & SAP SuccessFactors Employee Central. In a fully integrated set-up having a Position Management (part of EC) integration to Fieldglass and a worker integration back to Employee Central for all worker types, you want to avoid double logins. Additionally, manual creation/maintenance of the same data twice and different semantic names for the same business objects across the systems is confusing and not user friendly. Please refer the SAP Help document here for understanding the mapping of data between these system. The look and feel should feel coherent for the users even though they are operating in two different systems.

It's not only hiring managers and approvers who are creating the transactions that are impacted, but also for system administrators and support functions, a disjointed User experience may influence the system usability as well as causing misunderstandings and problems resulting in loss of valuable time.

4.4 Rehire of External Workers

Skilled workers are seldom in the same organization longer than the initial assignment or project period. The resource moves sometimes to other parts of the organization, with a different cost allocation and hiring manager, and maybe also a different role description. Additionally, Workers can change employer or organization that the Work Order is associated to.

In case of a new supplier or contract, a new Work Order is always required while it is seldom desired from a business perspective to create new Work Orders for varied administrative reasons. In general, a Work Order is always associated to a Job Posting and a Job Posting Template, i.e., a Job title, as well as a Job Code. The initial technical association between Job Posting Template / Job Posting and Work Order cannot be changed, but the Job title as well as the Job Code is editable throughout the entire lifecycle of the Work Order. This can cause problems since it might look from a Job title and Job Code perspective that a work order has another association to a template than it has. Any custom fields that are specific for a Job Posting Template might then

appear wrongly in the Work Order, Worker or even only in the Worker Download file that is downloaded in an integration to Employee Central. In case there is data transferred from the template, it's a significant risk that the integration could fail, or potentially even wrong combination of data is transferred to Employee Central.

Rules

Posting

☑ Creator can change Job Posting Title

☑ Creator can change Job Posting External Description

<div align="center">Configuration to change Job Posting Title & Description</div>

Statement of Work (SoW) workers and Profile Workers are not created based on the Employee Central position, a Fieldglass Job Posing Template and Job Posting. Therefore, the process is therefore less complicated for these kinds of external workers from this perspective. Both Statement of Worker workers as well as Profile Workers can, but do not need to be sent across to Employee Central via the Worker download integration, even if Contingent workers are. It is however advisable as these worker types most probably also need a record in Employee Central for tracking, training, or system accessing reasons.

Whenever a new Work Order, a new Statement of Work or a Profile Worker is required for an existing worker of any worker type, it is important that the accesses are not lost, which is a common problem. The new order /worker starts the day after the last order/worker is closed, meaning there is a trigger to close the old Work Order and Worker and another one to create new ones. It is important to avoid delays in the integrated systems and eliminate any manual actions in the bridge between the Work Orders and Workers.

4.5 Standard vs Custom Integration maintenance for typical use cases

With any customer IT landscape, integrating SAP Fieldglass and SAP SuccessFactors involves a multi-step process and could be complex many-a-times based upon business needs. For businesses, the purpose of integration between Fieldglass and Employee Central is to remove dual maintenance of master data for external workers.

As the default option, SAP has provided a pre-packaged integration that can be quickly enabled to integrate Fieldglass with SuccessFactors. This works out of the box, but in the standard integration, there are some known limitations* which are useful to be aware of, while making a choice between a standard or custom integration to support typical use cases, where the limitations posed by standard integration may affect business processes and as such a custom integration is required.

If an organization is agile enough, rapidly changing, reorganizing or other high-volume changes then a custom integration might be more suitable to ensure data will not fail, while it's being replicated from Fieldglass to Employee Central.

5 SOLUTION OVERVIEW AND CONCEPTS

SAP SuccessFactors Employee Central Solution supports multiple integration scenarios with SAP Fieldglass. This means that the external hiring process initiated from SAP Fieldglass will have the data flowing to SAP SuccessFactors Employee Central to leverage additional functionality provided by a leading Core HR system.

SAP standard integration solution supports automated data flow of external workers & related data across these two products via different means namely by leveraging files, APIs, Integration Centre, and SIS. The best-chosen setup is based upon the respective business scenario. The integration summary has been represented in a data flow diagram below for reference use and explained varied use-cases from this into subsequent sections of this chapter, thereby reducing re-work and data inconsistencies between SAP SuccessFactors Employee Central & SAP Fieldglass applications.

Central Master Data Integration (MDI) management allows seamless synchronization for HR, Finance, and Personnel information across the enterprise. For more details on MDI, please refer SAP Help guide <u>here</u>.
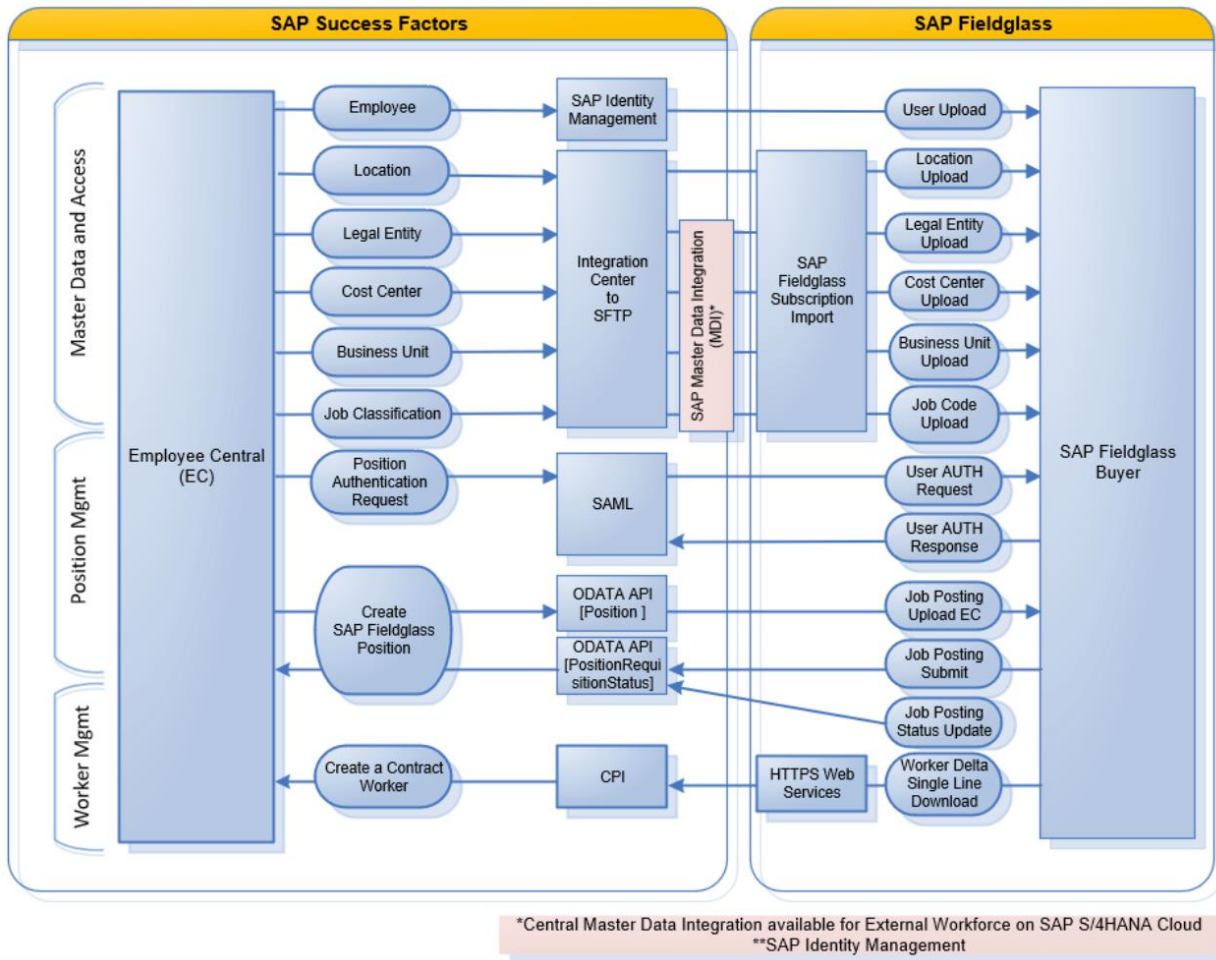
Integration points across SAP SuccessFactors Employee Central & SAP Fieldglass without MDI

5.1 Handling contingent workers across different systems by understanding key Identifiers

We have in our scenario, the transfer of external workers from SAP Fieldglass to SAP Employee Central and further to SAP S/4 HCM system where an external worker has one or more work assignments to successfully run end-to end business processes. With this, let's understand the consideration of such workers across the three different applications.

5.1.1 Key Identifiers in SAP Fieldglass

To identify workers uniquely across assignments the SAP delivered iflow in SAP Cloud Integration uses the Security ID. The Work Order ID is used to recognize a specific assignment there. In SAP Fieldglass, a work order represents a mutual agreement between the hiring manager and the supplier. A specific candidate is assigned to a job posting or requisition and the terms are agreed. The Work Order ID is the identifier for a work order.

The Security ID is an optional feature in SAP Fieldglass, which must be enabled in the application to use the SAP delivered iflow.

To set up the Security Information feature, these actions must be completed:
● Initiate the Enable Security Information company configuration.

- Initiate the Allow Security ID format by Worker Country of Origin company sub-configuration.
- Establish the preferences described on this page and any other necessary company configurations.

Details

Company Code	DLAB
Company Name	DLAB
Email Domains	fg_qatest8@sap.com
Company Website	
Company Logo	
Phone Number	
Address 1	1000 West Avenue
Address 2	
City	Chicago
State/Province	IL
Country/Region	USA
ZIP/Postal Code	60606
Marketing Info	
Contact	
Number Of Employees	
Annual Revenue	
Industries	
Company Contact Person	Wagner, Kevin
Company Duns #	
Company Ticker	
System Administrator	
Ariba End Point	Fieldglass
Success Factors Company ID	ECSReport1

Company Configuration

	Default Value	Lock Default Values
Company		
Default Currency	US Dollar	
Default Time Zone	US/Central	
Default Date Format	DD/MM/YYYY	
Default Time Format	12 Hour Clock	
Default Number Format	#,##9.99 (Example: 1,234,567.99)	
Default Language	English (United States)	
Supported Languages	Chinese (Traditional), Chinese (Simplified), Swedish (Sweden), Russian (Russia), Portuguese (European), Portuguese (Brazil), Polish (Poland), Dutch (Netherlands), Mongolian (Mongolia), Korean (Korea), Japanese (Japan), Italian (Italy), Hungarian (Hungary), French (France), French (Canada), Spanish (Mexico), English (United States), English (United Kingdom), German (Germany), Arabic (Standard Arabic)	
Default Email Format	HTML Based	
✗ Lock Username during User Registration		
Size and Scale		
Default Hours per Day	8	
Default Hours per Week	40	
Log In		
Login Authorization Type	Both	
SAML2 IDP URL	https://sapiesproxy.accounts400.ondemand.com/saml2/idp/sso/sapiesproxy.accounts400.ondemand.com	
SAML2 Logout URL	https://sapiesproxy.accounts400.ondemand.com/saml2/idp/slo/sapiesproxy.accounts400.ondemand.com	
SAML2 Timeout URL		
✗ Enable TLS Security check on login		
✗ Minimum required TLS version for login	TLSv1.2	
✗ Blocked TLS Cipher		
✗ Enable 2 Factor Authentication for All Users		

User access to Business Units	Build	
User access to Sites	Build	
✅ Enable Security Information	[A-Z][A-Z][A-Z][A-Z][A-Z][A-Z][0-3][0-9][0-1][0-9][0-9][0-9][0-9]	
❌ Display Security Information Masked (value is always stored encrypted)		
For Contingent, Security Information is required to	Submit Job Seeker	
❌ Allow Security ID format by Worker Country of Origin		
❌ Supplier must verify Security ID when accepting Work Order		
❌ Suppress Site Tax Field (standard uploads will not enforce this rule)		
✅ Enable Ad Hoc Approvers		
✅ Allow manage Cost Center on creation of Work Order and Work Order Revision for Contingent Workers only	❌	
✅ Allow manage of Cost Centers on Cost Allocation tab and on creation of Work Order and Work Order Revision for Contingent Workers only		
Cost Allocation Percentage decimal precision	3	
Enable Segmented Object Detail		
❌ Apply to Cost Center for Contingent		
❌ Apply to Cost Center for Services		
❌ Apply to Cost Center for Assignment		
✅ Require GLA Allocation on Job Postings and Statements of Work	Task	
✅ Allow GLA Allocation on Work Order and Work Order Revision Only		
❌ Require Segmented Object Detail based allocation		
❌ Perform Segmented Object Details date validation on Line Item submission and beyond until Invoice approval		
❌ Enable cost allocation based on Spend Matrix selection		
❌ Work Order		
❌ Assignment Management		
✅ Use Adjustment Groups		
❌ Apply adjustments to Actual Spend		
✅ Display Spend Allocation Details	❌	
✅ PMO Dashboard		
❌ Rate Guidance		
✅ Enable Supplier Qualification		

Having this, a Security ID (SID) is generated for a worker with a predefined security pattern. It consists of numbers and/or letters established by the buyer. Please note, only capital and lower-case letters and numbers are allowed. Special characters cannot be used. Also, SID pattern can't be changed once it has been configured in the system.

Here, the security id is the first name initial, last name initial and the last four digits of the worker's Social Security number (or day and month of his birth date). As an example, Joseph Wild with Social Security Number 055-72-0605 would get Security ID JOWI0605. If we use the birthdate, the Abdu Cder born on10[th] November would get the Security ID ABCD1011.

If we have the rule above with the birthday to generate the Security ID. The Security ID PEMI1112 will be matched by Peter Miller born on the 11th of December. Other matches for this Security ID are very unlikely.

First name	Last name	Day of birth	Month of birth	Security ID	Match
Peter	Miller	12	05	PEMI1205	No match
Paul	Miller	04	07	PAMI0407	No match
Peter	Morgan	12	08	PEMO1208	No match
Peter	Miller	11	12	PEMI1112	Match

Using security information to identify workers is optional. If this feature is not enabled, the SAP Fieldglass application performs a standard check to identify to previous and existing job seekers and workers. When this feature is enabled, the system uses the additional security information data to uniquely identify an individual, allowing for more accurate matching.

5.1.2   Key Identifiers in SAP SuccessFactors Employee Central

With this, let's have an overview of multiple identifiers in SAP SuccessFactors Employee Central application, where the data model belongs to the person. The access to the employment of a person in the User Interface (UI) is done via the People Profile of a person in SAP SuccessFactors Employee Central. Here, a human being is represented by the person, where each person is identified by the unique PersonID External in the Employee Central system.

An employee's contractual relationship with a legal entity is captured as an employment. An employment could be identified by the User ID or the Assignment ID.

- The User ID is a mandatory field for the employment, which cannot be changed.
- The Assignment ID is an additional field, which has been developed lately to identify the employment. In Employee Central. It can be enabled via the system settings and by default, the value of the Assignment ID field will be the same as that of the User Id field.
- If the Assignment ID is included during creation of a user/import new employee(s), it can be populated with different values for User ID and assignment id external. Please note, such Assignment ID can only be changed using a special function import.
- Also, the Assignment ID could be used as a PERNR in SAP S/4 HCM as well leveraging customizing settings option available with Core Hybrid Integration.
- To use the Assignment ID in the integration from SAP Fieldglass to SAP Employee Central the SAP delivered iflow must be customized. The Work Order ID from SAP Fieldglass must be transformed in a numeric value that could be used as PERNR in SAP S/4 HCM. This transformation can be done with an additional calculated field in the information from SAP Fieldglass which is mapped to the AssignmentID in the user entity. Or in the iflow the value from Work Order ID is changed accordingly and mapped to the AssignmentID in the User entity.

Please refer to the existing IDP – Employee Central Core Hybrid: Handling Employee Identifiers for detailed information around the topic.

5.1.3   Key Identifiers in SAP S/4 HCM

In SAP S/4 HCM, the identifier Central Person (CP) represents a natural person in the workforce of an organization. The identifier PERNR (Personnel Number) represents the contract of a person, with an organization, specifically a legal entity in a particular country. In SAP S/4 HCM system, the PERNR (Personnel Number) is of main interest, that is leveraged in the User Interface (UI) for accessing the personal data stored in the Infotypes. This identifier is different in SAP SuccessFactors Employee Central, SAP Fieldglass and SAP S/4 HCM system and needs right mapping between them for successful integration and data flow. Below is the summary with the domain of individual objects alongside relevant examples for the same to simplify the mapping of varied manifestations of the external worker across the systems.

System	Field	Function	Data Type	Length (max.)	Example
Fieldglass	Security ID	WorkforcePerson	String	20	ABCD1011
Fieldglass	Work Order ID	WorkAssignment	String	14	CRPSWO00000098
Employee Central	PersonID External	WorkforcePerson	String		ABCD1011
Employee Central	UserID	WorkAssignment	String		CRPSWO0000009 (when concurrent employment on) Or ABCD1011
Employee Central	AssignmentID	WorkAssignment	String		10000098
SAP S/4 HCM	Central Person	WorkforcePerson	NUMC	8	50000012
SAP S/4 HCM	Personnel Number (PERNR)	WorkAssignment	NUMC	8	10000098

All others field mappings between these Fieldglass & Employee Central can be checked in the SAP Help guide here.

5.2 Objects Relationship between SAP Fieldglass and Employee Central

With an IT landscape, it's important to have suitable (standard or custom) data integrations in place, which allow to keep the data up-to date across the applications, while organizational changes do take place at varied frequencies based upon business needs. Having such a setup, prevents creation of redundant new contracts or updating of existing valid contracts but with an invalid set of data.

5.2.1 Organizational Structure
Organizational master data objects are well suited to integrate between Employee Central and Fieldglass. The format and mapping logic between the systems are generally consistent and variations are predictable with clear rules, but the volume is high, and changes are many.

Legal Entity
Having a unified master data based on one source is important, but without a common association between these objects in the two applications the value is low. Therefore, it is very beneficial to use the Fieldglass master data object 'Legal Entity' within Fieldglass to avoid mismatches and increase the validations between allowed organizational objects and cost centers. Legal Entity enables the possibility to establish system relationships in Fieldglass between the foundation data elements Business Unit, Cost Center, Site as well as with User. (Other associations are also possible but those have no connection to SuccessFactors data objects).

With Fieldglass application, organizational object 'Legal Entity' is not mandatory but advisable to activate as it enables the possibility to mirror an organizational structure from a leading HR system and hence limit the available combinations for organizational objects in the system.

5.2.2 Position

Having a position integration in place for the contingent workforce, a position with master data is created in SuccessFactors and later punched out to Fieldglass to automate the Job Posting creation, so the information will be accurate at the time of creation. However, do eliminate the risk that Hiring Managers in Fieldglass may update original information with incorrect (unexpected) data and hence there is a need to prevent the possibilities for editing relevant objects of the Job Posting in Fieldglass. Although, this makes the overall process less flexible but does provide a better control over the process.

- Please do note that position integration is not mandatorily required for the end-to-end process to work, while it's more of a business decision which need to consider on benefits with such a tightly integrated automated process in comparison to a more manual approach for position via a controlled process.

- Without a position integration, purchasers are creating the request from scratch instead of having a drafted Job Posting which they can enrich with purchasing specific data.

The advantage of starting without a position from EC is that there are fewer limitations, and the creation is fully initiated from a procurement perspective in the system where all rate cards are visible per Job Posing Template in Fieldglass. A separated headcount approval can be administered via activity items or custom fields in Fieldglass, to track the approval, even though it is done outside the system. Such an approval will not be system controlled, and a Work Order can be created even though there is no proper approval done. In case there is no standard position integration in place, it is still advisable to configure a custom Position ID in Fieldglass (to be entered manually) if there is a corresponding position in Employee Central. This position field editable in the Fieldglass Job Posing module is linked to the Worker module, so that a match to an Employee Central position can be done via the Worker download integration after Work Order creation.

For Profile and Statement of Work workers, that are not managed by the Buyer organization nor in general subject to headcount approval, neither a position in Employee Central nor a corresponding Job Posting in SAP Fieldglass is relevant. It is necessary to allow replication of workers from Fieldglass to Employee Central, even if those workers don't have a linked position to enable trainings consumed via SuccessFactors Learning.

So, for a case where there is no position integration in place, the object relationship needs to be accurate to secure the worker download and consequently allow a successful onboarding of the external worker in Employee Central.

5.2.3   Job

Using standardized role descriptions for the entire workforce of an organization, and providing HR the full ownership of this data, the prerequisites to have a better user experience for the managers increases, and maintenance will be less heavy. A subset will be relevant for external workforce and only those are reflected as Job Posting Templates in the Fieldglass application. There might also be differences based on Procurement specific parameters that are not relevant for SuccessFactors, e.g., a Solution Architect might have a different rate card within different business units or sourcing categories. In that case a one-to-many mapping could be acceptable and can be handled in the process natively, even though it builds complexity. All SuccessFactors relevant data need to be the same for these Fieldglass templates, and it is advisable to use a common naming conversion for all roles, to support rules. Also, including the country or region dimension as well is preferable in case of a global organization.

- In case it is not possible to have a 1-1 match between the Job in SuccessFactors and the Job Posting Template when punching out a position to Fieldglass, the native Job Classification functionality can be used, to let the hiring manager select from a list of relevant Job Posting Templates in Fieldglass before initiating the Job Posting.

- For larger organizational changes, there might be a need to mass update existing documents as Work Orders, Statement of Works, or Profile Workers. By defining a process where an action is triggered to an admin Fieldglass support function internally, these uploads don't need to be very complicated. The native connectors should be sufficient and if templates are initially created itself, these can be re-used either. Considering these larger organizational changes doesn't occur on a daily or weekly basis, having an automated setup might not be worth, as Sourcing specialist inputs are most often required for manual decisions.

5.3 Handling seamless User Experience across Systems

SAP's strategy is to harmonize the user interfaces of the different systems in the SAP portfolio. When the cloud systems were acquired in the 2010 the systems came from different technological backgrounds. The harmonization has accelerated and Fieldglass user experience therefore has significantly changed over the years.

In case a position integration is used, the Hiring Manager is transferred from Employee Central to Fieldglass. As soon as the user clicks on "Create SAP Fieldglass Requisition" the Fieldglass Job Posting initial screen will be launched in another browser window up on successful SSO authentication of the user.

With such a seamless integration, Fieldglass position data has been leveraged from Employee Central as much as possible, where the Hiring Manager should only need to enrich the Job Posting with Procurement / Fieldglass specific data, but without any need to add Job and organizational data manually.
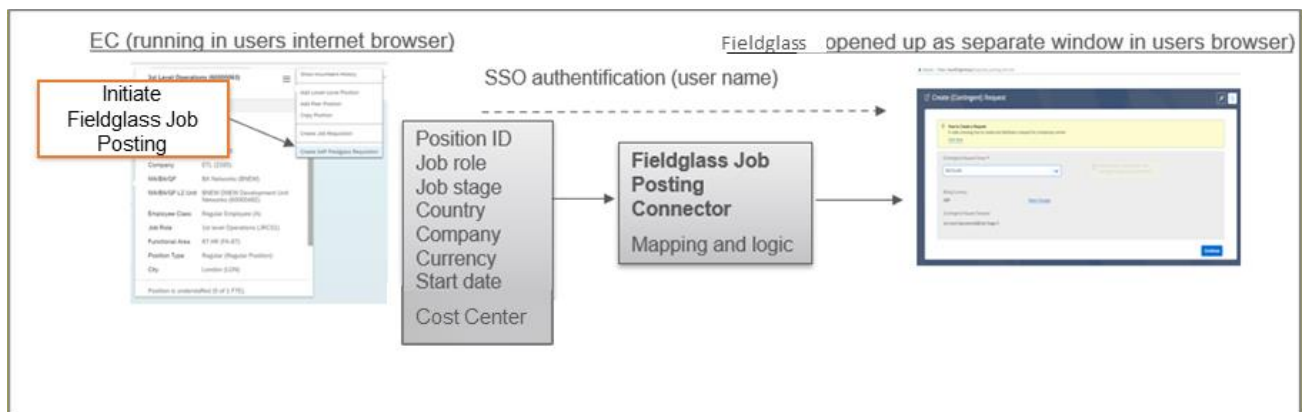
Example – Data transfer when a position is punched out to Fieldglass, when the Hiring Manager is pushing the 'Create SAP Fieldglass Requisition' button for the position in Employee Central and re-used same data for the Job Posting exercise in Fieldglass.

5.4 Rehire of External Workers

With an ideal state, expectation is to avoid shortcut trials to make an existing Work Order changed to another assignment for the same worker. A Work Order has a Job and a Job Posting, that initially comes from a position, i.e., a specific request for a work to be done. If that specification is changing significantly there is most probably another Job with another Job Posting Template, with other qualifications, activity items and maybe other legal requirements associated. By changing a Work Order title, via the Job Posting, or changing the Job Code you are not changing the bases and there is a risk that information is sent through a worker download integration, e.g., the Active Worker Delta Single Line Download.

To mitigate such risks of having Work Orders changed when there is a new role / Job, access control is important and should be restricted to process skilled PMO or Fieldglass administrators. I.e., the *Edit Job Posting after Creation* setting needs to be carefully analysed in the role definitions.
The allowance of combinations of Job-related objects is different across SuccessFactors and Fieldglass and therefore there is a risk that changes or incorrectly created Job Posting Templates in Fieldglass may result in failure of the worker integration and hence the Onboarding of an actual worker itself in SuccessFactors.

Here, one of the solutions to avoid integration failures is to limit the information uploaded to Employee Centrals from Fieldglass, and instead set the master data based first on Job Posting Template or the Job Code, from the Worker / Work Order. Another downside is that this might result in discrepancies between Fieldglass and SuccessFactors, which need to be monitored and followed up to avoid unwanted organizational associations.

Without Concurrent Employment configuration enabled in Employee Central, in case of the "rehire limitation" scenario the main problem might occur in SuccessFactors or in integrated user access / ID systems. A worker would normally lose its access and accounts are closed as soon as an assignment has ended. In case a Work Order is replaced by a new Work Order, e.g., when a worker is changing suppliers, the trigger to remove accesses on the last day is transferred from Fieldglass and another one is sent to update the user the day after with a new work order association, which in practice is a prolongation for the worker (and the Consolidated Worker Record). This is different from when a new first Work Order is created when the process can be triggered ahead with a known start date, while for a worker that is already active, such a trigger would not be possible until the first Worker is closed. The solution and recommendation are to use Concurrent Employment configuration in Employee Central or customize the standard iflow to remove the Job Information Sequence number and hard code it to '1'. As a last alternative to manual action, a BOT can be used, as the steps and data are clear, and speed is required to execute this in the system.

Please also refer the Security ID usage as explained in 6.4 for Rehire use cases and tenure calculation cases.

5.5 Standard vs Custom Integration maintenance for typical use cases

The standard integration supports general use cases but does not offer any flexibility for custom mapping or specific scenario management with customers. Hence, a solution to this is to have a custom integration instead which is to copy the SAP Standard Package to a custom specific one.

In BTP SIS, one has the option to create logical checks on the data input from Fieldglass and create unique routes of updating data, adding custom fields and logic on what entities should be updated to ensure correct and stable data uploads.

So, when designing a custom integration scenario, it's important to review the general ways for extracting output of the worker and work order data from Fieldglass and sent through the Fieldglass integration connector used for Employee Central integration.

Here, are the steps typically followed by an end user (external worker) while using SAP Fieldglass and SAP SuccessFactors:

- **Accessing SAP SuccessFactors:** The first step for an end user is to log in to SAP SuccessFactors and typically happens via a web browser with user's credentials.
- **Creating Job Requisitions:** Once logged in, the user can create job requisitions in SAP SuccessFactors.

It involves defining the job requirements, such as job title, location, and job description.

- **Posting Job Requisitions**: After creating a job requisition, the user can post it to SAP Fieldglass.
  It can be done via an integration setup between the two systems or by manually entering the job requisition.
  related details into SAP Fieldglass.
- **Reviewing Job Applications:** Once the job applications are submitted by candidates, the end user can review and manage them in SAP Fieldglass itself. It includes reviewing resumes, screening candidates, and scheduling interviews.
- **Hiring Candidates:** Once a candidate is selected, the end user can move them through the hiring process in SAP Fieldglass. This includes extending a job offer, completing any necessary background checks or screenings and onboarding the new employee.
- **Managing Timesheets:** After the employee has started work, they can submit timesheets through.
  SAP Fieldglass. These timesheets can be approved and managed by the end user in SAP SuccessFactors.

Overall, the process of using SAP Fieldglass and SAP SuccessFactors as an end user, involves creating job requisitions, managing job applications, hiring candidates, and managing timesheets.

SAP Fieldglass to SuccessFactors Employee Central Integration -
In general, SAP Fieldglass create an output in the standard integration file and the default connector to be used is 'Active Worker Delta Single Line Download'. Key considerations have been highlighted below for reference here -

- The download will include all the active worker records since the last successful run date of the connector for that buyer/MSP in SAP Fieldglass.
- The worker file will download a worker record when the worker is registered or updated.
- The download will also include any worker records, which are closed in the future as those records are active on the day when download action has been executed.

With later detailed solution section, this will be the starting point for custom integration approach to accommodate additional requirements like incremental loads, data validation or any kind of custom logic for the typical integration use cases like below, encountered in a customer landscape.

Fieldglass Action	Employee Central Status
New Worker	Create person and employment in the system.
Work Order Revision	Update Work Order and Job-related Information for the external worker
New Work Order	Create New Employment for former Person
Close Worker	Work Order End date expired

Use Cases Summary - SAP Fieldglass to SuccessFactors Employee Central

SAP SuccessFactors Employee Central to Fieldglass Integration
With a need to avoid dual maintenance and data quality issues, one can add integration of shared Master Data between the two applications. And hence review scenarios for each customer, which updates values in Fieldglass but mastered in Employee Central. As an example, such a shared integration allows Vendor maintenance in Fieldglass which are manually uploaded to Employee Central.

Here, is the list of shared data objects / tables which could be integrated in such a manner:
- Vendor
- Job Code
- Job Family
- Department
- Business Unit

6   DETAILED SOLUTION

6.1   Handling contingent workers across different systems by understanding key identifiers

As explained in solution overview chapter, there are multiple considerations for mapping the identifiers across the respective systems covering SAP Fieldglass, SAP SuccessFactors Employee Central and SAP S/4 HCM

in a typical customer landscape. If such systems are already in use with a brownfield implementation, not all key field mapping options can be used directly, as the Core Hybrid integration runs for both internal as well as external workers between SuccessFactors Employee Central and SAP S/4 HCM. Please note, due to the similar nature of content captured with the key fields across the applications, employee data is recognized as a master data, which belong together across system boundaries.

6.1.1   Integration between SAP Fieldglass and SuccessFactors Employee Central

SAP has provided a standard integration iflow between these two applications, which almost covers the static mapping where values are transferred as it is across the systems. So, if such a preconfigured iflow has been used, there is a little flexibility to include customer specific requirements in its current state. In such a case, when the Concurrent Employment configuration is enabled in Employee Central, the WorkOrder ID from Fieldglass is mapped to the UserID field in Employee Central otherwise without this configuration it is Security ID. Please refer SAP Help Field mapping section for more details.

However, there are multiple cases where there is a need for customer-specific adaptations of the iflow and hence adjustments can be made via a custom integration. For example, it is possible to place a mask on the Work Order ID, to generate a unique 8-digit number for the Work Order ID. This unique number can be transferred either as Assignment ID or User ID in EC and can be even used as Personnel Number (PERNR) in SAP S/4 HCM. Please refer section 6.5 for varied use cases, where a custom solution has supported business needs around this integration.

6.1.2   Integration between SuccessFactors Employee Central and SAP S/4 HCM

There are multiple approaches covered below, which does impact the standard integration between EC and S/4 HCM applications. Here, link between the employment relationship and the Personnel Number is possible depending upon the chosen solution approach.

Assignment processing in the integration

In the integration between Employee Central and SAP S/4 HCM, the Assignment ID can be transferred from Employee Central as a personnel number via the constant ERP to EC/EC to ERP (BIB): Activate Assignment ID External and set the constant value to X in Customizing. You could access the maintenance of this constant in the Implementation Guide of SAP S/4 HCM (IMG).
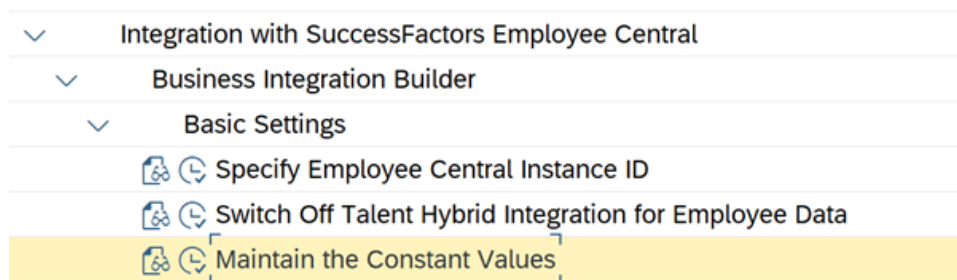
Here, the constant ERP to EC/EC to ERP (BIB): Activate Assignment ID External is set to X for activation.

The prerequisite is that the AssignmentID in Employee Central has been activated and the value for same has been set to maximum of eight digits and is numeric in nature. So, whenever there is a data transfer for an external employee from Fieldglass to Employee Central, an enhancement must have been made in the iflow as well (the from SAP delivered iflow must be changed). The numeric part of the Work Order ID is to convert into an eight-digit number that can be used as a personnel number (PERNR) in SAP S/4 HCM.

The advantage is that Assignment ID links the external worker in Employee Central and in SAP S/4HCM. As mentioned above, the User ID in Employee Central is mapped from the WorkOrder ID in Fieldglass. It's a string field having a length of 14 covering characters and digits. Therefore, the User ID could not be used as

personnel number (PERNR) in SAP S/4 HCM. In such a setup, we recommend using the Assignment ID field to connect employees in both systems. And, for the Central Person, the internal number assignment can be used in SAP S/4 HCM itself and hence a meaningful mask is also not required.

Conversion of the IDs to generate unique PERNR in the BAdI

If integration from EC to SAP S/4 HCM is already active, then the processing of the Assignment ID in the integration cannot be activated anymore for a brownfield implementation.

So, we must implement an alternative solution to connect the data of the external worker. Using BAdIs, it is possible to set the User ID for the personnel number via the definition ECPAO_IN_EXT_PERNR_MAP and eventually transform User ID from Employee Central (set with the value of the WorkOrder ID from SAP Fieldglass, a 14-digit string field) to a valid Personnel Number of 8-digit numerical number that SAP S/4 HCM expects.

For the personnel number, a mask can be placed over the User ID in the BAdI to generate a unique 8-digit number. In such a way, there are no identical IDs generated while it's easier to create a link between the user ID in Employee Central and the Personnel Number in SAP HCM. This implementation approach should be used, if the direct usage of the Assignment ID is not possible for the brownfield customer.

```abap
METHOD if_ecpao_in_ext_pernr_map~map_ext_pernr.

  DATA:  lv_user_id          TYPE   paocfec_user_id.
  DATA:  lv_length_user_id    TYPE i.

  lv_length_user_id = strlen( user_id ).

*
* From 14 digit SF user_id CCCCCC0NNNNNNN to 8 digit PERNR 1NNNNNNN
* Criterion: Only the length of the userid (14 digit userID originally from SAP Fieldglass).
*
  IF lv_length_user_id = 14.
    lv_user_id  = user_id.
    SHIFT lv_user_id LEFT BY 6 PLACES.
    lv_user_id(1) = 1.

    pernr_external = lv_user_id.
  ENDIF.

ENDMETHOD.
```

Internal numbers in SAP S/4 HCM

It is possible to have the IDs for the Central Person and the Personnel Number created by SAP S/4 HCM during the integration itself.

Here, the assignment between the IDs in Employee Central and the Personnel Number are stored in the key mapping database table ECPAO_EE_KEYMAP. As, there is a fixed assignment of identifiers from SAP Fieldglass to the Employee Central, the numeric part of the WorkOrder ID is visible in SAP S/4 HCM. Also, it is possible to write the identifier in own subtypes of IT0105 and leverage this information for any kind of usage in SAP S/4 HCM by the administrator. For the Central Person, it is a recommended to use internal numbers in the integration between SuccessFactors Employee Central and SAP S/4 HCM, because administrators normally do not use the Central Person directly in SAP S/4 HCM. They use the Personnel Number (PERNR) to access the data of an employee.

6.2 Objects relationship between SAP Fieldglass and Employee Central

SAP provides a wide spectrum of standard connectors to use for integrating Fieldglass and Employee Central to enable proper object relationships between the two applications. As the total workforce management process starts and ends from Employee Central with Fieldglass in the middle for external workers, the relationship needs to be accurate on both ends. Any changes from the original combination of data need to keep being valid from an Employee Central perspective, as the data will be transferred back through the Worker Download integration later in the process.

6.2.1   *Organizational Structure*

First, the most important factor is to set up master data integrations for organizational and financial data which are mastered in other systems than Fieldglass, and yet updated or can be changed regularly. The following standard connectors within Fieldglass are highly recommended to set up if the objects are used and maintained as master data objects in SuccessFactors as well as in Fieldglass.

- Location Upload

The Legal Entity replication should take place from an SAP S/4 HCM system, where a 'Legal Entity Upload' connector has been typically used to replicate company codes via a Web Service method in a Real-Time mode and execute any business relevant validations there. Also, similarly SAP S/4HANA is the true source for cost center maintenance as well. So, cost center data replicates automatically based upon define period configured with MDI_COSTCENTER Subscription and more details can be accessed here for the master data replication. Please note, it's a recommendation to use MDI based integration solution for these master data imports into the Fieldglass application.

In general, the Legal Entity as well as the Site Upload connectors might not be required to set up integration subscriptions, since changes could happen in a seldom manner. Through the uploads listed above, associations can be done between these objects, as restrictions or as default values.

However, as highlighted in Sec – 5.2.1, it is a recommendation to use the organizational object Legal Entity in Fieldglass, and best practice is to map it one to one to Legal Entity in SuccessFactors, no matter if there is an integration providing Fieldglass with the data or if it is manually maintained. Depending upon the structure of the organization, the Legal entity might be used differently. i.e., it doesn't necessarily need to be used for the actual business object legal entity but can also be used to map towards business units or even further down in the organizational hierarchy. Any 'Business Unit Replication' should take place directly from SuccessFactors system into Fieldglass via an MDI based solution.

As for all objects in Fieldglass, Legal Entity can be given any name, so that the name corresponds to the information in SuccessFactors for the same object. It needs to be decided at what level in the organizational hierarchy data are grouped, as groups with data validations are done on the Legal Entity level in Fieldglass. In the decision it is required to take into consideration any potential Requisition or Purchase Order integrations where distinctions are needed on the right level in an ERP system.

With respect to user provisioning, SAP's recommended approach is to use Identity Services (IAS/IPS)-based integration. It's an easy, centrally administered user management and identity provisioning is a key for an end-to-end integration. Having this, customers will benefit from the simple configuration and the central user management as maintaining users in multiple systems across a heterogeneous landscape will be obsolete. So, user lifecycle management will be managed centrally for Fieldglass using the central Identity Provisioning service (IPS) and Identity Authentication Service ensures a consistent way of enabling Single Sign-On (SSO) throughout all SAP products. Please refer more details over the SAP help for this.

Here, are the key examples which should be taken care of with IPS transformation while setting up integration with these two applications.

- Import Users – It's important to setup those users in IAS, which are required for running Fieldglass operations. Such users are originally mastered in SuccessFactors system and hence this sync to Fieldglass is typically a two-step process. An initial process step is to setup IAS, where SuccessFactors is the source application and IAS remains the target for provisioning of users there. Having this, subsequent setup would be read those users from IAS application and feed to the Fieldglass application via IPS jobs.

  Please do note, all necessary 'Fieldglass relevant' attributes (e.g., business unit, division, supervisor etc.) are being read for users, which are provisioned from SuccessFactors into IAS and mapped appropriately with transformation templates. In case, any of these is missed out, it would result in failure during the user creation at Fieldglass during the second step of process.

  As an example, do ensure a division code (Category Type '01' but not '02') is a read appropriately using expand option from SuccessFactors with an IPS query and then later mapped rightly to the business unit code on the Fieldglass application. Also, as a best practice, do ensure to include all the managers in the first run to Fieldglass and include further employees in second run. A sample SCIM based transformation template looks like below.

```
{
  "sourcePath": "$['urn:ietf:params:scim:schemas:extension:enterprise:2.0:User']['division']",
  "targetPath": "$['urn:ietf:params:scim:schemas:extension:enterprise:2.0:User']['division']",
  "optional": true,
  "scope": "createEntity"
},
```

- Managing a role in Fieldglass – As a best practice, don't assign any role to a user during import into the Fieldglass application. In such a stage, role assignment should directly take place in Fieldglass directly by admin or system automatically based upon org attributes. In case, a prior role assignment is mandatorily required for business purposes, a default role (say, managers) can be added to the transformation file in a format like below.

```
{
  "targetPath": "$.groups[8].value",
  "constant": "Reviewers/Managers"
}
```

When scheduling integration subscriptions, it is wise to have the same frequency for the different organizational connectors and plan the order in which they should run. It is advisable to start from the top in the organizational structure, i.e., Legal Entity, and ending with users that have associations to all other objects. Otherwise, there will be users that will not be created or updated until the next run of organizational data has been performed.

Mass updates in SAP Fieldglass

For larger organizational changes mass updates of existing legal contracts like Work Orders, Statement of Works, or Profile Workers are common and can be done via SAP delivered standard integration. As the updates are scheduled, the upload procedure through native connectors will not be complex and change requests can easily be standardized to ensure data uploads are successful before an admin user manually uploads it. If changes are occurring with larger frequency an RPA can be defined and handle the updates in the UI based on in-data. Developing and maintaining those requires however its effort.

6.2.2   Position

With a position integration, where the position in SuccessFactors is uploaded via the native Job Posting Template connector into Fieldglass, the data are in synch at the time of creation. Master data mismatches will make the integration fail, and corrections are required to continue the process. To avoid discrepancies to occur within Fieldglass master data on the Job Posting, there are organizational data objects that can be defined as not editable for business users. Any changes to these data would instead be done on the position in SuccessFactors. This would however normally be limited to the Job Posting only and the procedure of updating already created Work Orders is different. Updates on Work Orders, as creation from the Job Posting, or as part of a Work Order Revision, can be restricted per user role. This approach will however have a large impact on the business process as work orders can be active for long, normally with various Work Order Revisions and potentially with different Work Order owners and cost allocations. By custom scripts it is possible to modify the native integration and do mappings in the interface, based on defined rules, so that Job Postings are automatically enriched.

6.2.3   Job

Job classification data is maintained in SAP SuccessFactors Employee Central and uploaded to the SAP Master Data service for business partners, from where SAP Fieldglass or other applications can retrieve it for their own purposes. Just like other Org unit objects, it's recommended to use MDI based solution to keep this master data in sync across the two applications.

Job role and Job level, business unit (e.g., Country or Legal Entity) as well as Job Classification can be sent to map towards Job Posting Templates for creating or drafting a Job Posting in Fieldglass through the position integration. In case there is a one-to-one mapping between the Job, Job Stage, and country / Legal entity the Job posting will be drafted in Fieldglass and can be enriched with Procurement specific data before it is distributed to suppliers. As there can be variations related to Procurement data, that require more than one Job Posting template per SuccessFactors Job Role and Job Stage the native functionality Job Classification is advisable to be used. This object is sent from Employee Central with the position and when there is not a one-to-one match with a Job Posting Template in Fieldglass, the Job Classification field in the template is used to define which templates are matching the position. The hiring manager is given a list of all available Job
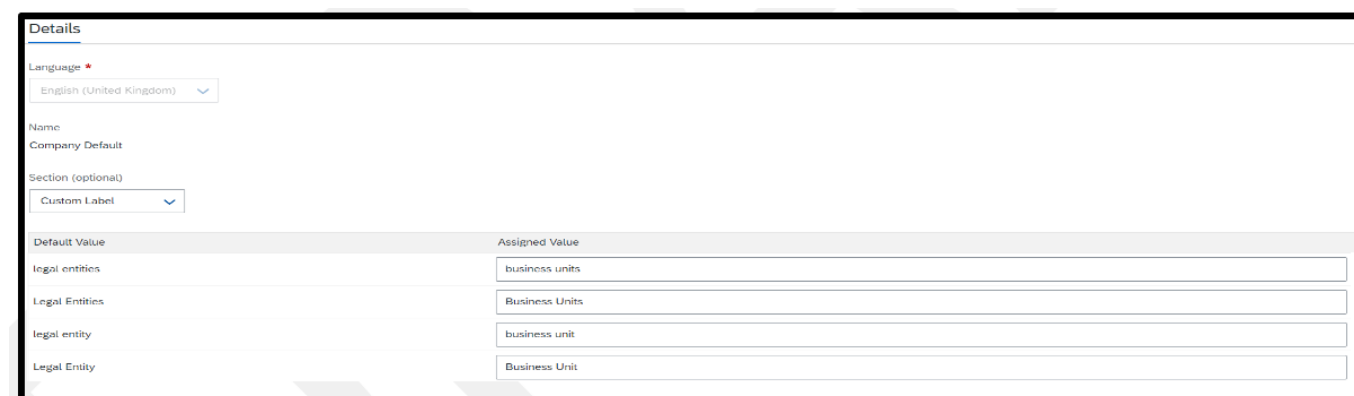
Posting templates that match the Job classification to choose from before the drafted Job Posting is created. SAP Fieldglass Job codes must be implemented and mapped to Employee Central Job Classification. It is crucial to maintain the Job Classification data in the Job Posting Template to have this working.

6.3   Handling seamless User experience across systems

The Fieldglass user interface is constantly going through a change and after each major release the look and feel of the application is becoming more and more like other SAP products, i.e., more Fiori but also SuccessFactors alike.

There is a significant UI change in Fieldglass coming in the May 2023 release, that Fieldglass users in the short run will need to adjust to, but that should make the user experience much better from a Total Workforce Management perspective where the Hiring Manager is sent from Employee Central to Fieldglass via SSO in the process of requesting an external resource to fill a position.

Depending on the structure of the organization, the Legal entity might be used differently. I.e., it doesn't necessarily need to be used for the actual business object legal entity but can also be used to map towards business units or even further down in the organizational hierarchy. As for all objects in Fieldglass Legal Entity can be given any name, so that the name corresponds to the information in SuccessFactors for the same object. It needs to be decided at what level in the organizational hierarchy data are grouped, as groups with data validations are done on Legal Entity level in Fieldglass. In the decision it is required to take into consideration any potential Requisition or Purchase Order integrations where distinctions are needed on the right level in an ERP system.


Leverage the Legal Entity to enhance the validations and organizational associations in Fieldglass but rename it to correspond to reality and to have it synchronized with SuccessFactors and your ERP system for Purchase Order handling.

6.4   Rehire of external workers

Workers are downloaded to Employee Central as soon as there is a confirmed Work Order, i.e., approved and supplier accepted, an approved and Open Profile Worker or an assigned worker to an approved Statement if Work. By using the 'Standard Worker Download - Delta Single Line' connector the new and updated approved worker records are sent to Employee Central, typically through a web service integration. All worker types are downloaded from Fieldglass, but through the field Worker Type there is a clear distinction in the file between Contingent, Profile and Statement of Worker. Below pictures describes the different worker types.

Workforce Engagement Patterns
External Workers & Services
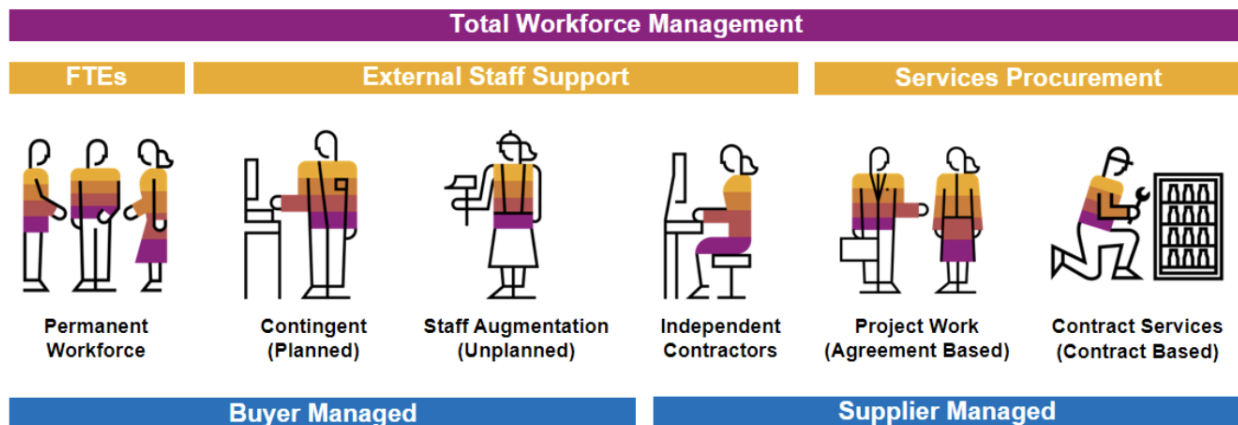
Consolidated Worker Record
To keep control over an external resource a Consolidated Worker is created for each worker in the system. The Consolidated Worker record is optional to enable but a must if integrating with SuccessFactors. Without that workers are sent to Employee Central without connection to earlier assignment or Orders. The Consolidated Worker record is supplier, role, time, and worker type independent and instead are all worker data gathered under this record.

Fieldglass Security ID
The logic Fieldglass must match a new worker to an existing Consolidated Worker record is the Fieldglass specific Security ID. It can be further detailed to also take name into consideration, to match a worker, but as people are changing names and spelling mistakes on names are common that comes with a risk. The Security ID format is decided upon system implementation and should be thought through, as a too simple format causes problems over time when more and more workers pass through the system. Individuals with similar date of birth and names get associated to each other by mistake if the Security ID is too short.

Identifying a worker by unique security information also provides the ability to track the history of a worker across multiple work orders and statements of work, giving visibility to the tenure of a worker. Worker tenure is important when there are company policies or country regulations that set limits on how long a person can work in a non-employee role, or how long a person must be away before returning for additional assignments. The worker tenure feature can be used with security information to provide a way to link a worker's past and current assignments for a company, allowing better visibility into a worker's history and tenure.

Work Order Change control
To decrease the risk that existing Work Orders are revised when instead new Work Orders should be created in case of change of roles of a worker, restrictions can be done on Job Posting level. The Job Posting Title is reflected on the Work Order. Access to User permission 'Edit Job Posting after Creation' under the Job Posting module should only be given to skilled administrator users who need to be able to adjust role titles. Hiring Managers will not themselves be able to change the title of a Job Posting.

As there is a one-day gap when consultants are moving from one Work Order, Statemen of Work or Profile Worker record to another due to change of roles, suppliers, or worker types it is important to avoid that this is impacting the worker regarding accesses. Depending on the subsequent processes or systems the amount of manual intervention required varies, but it is most likely not zero. A manual order desk might be used for this purpose, but it could also be worth looking at the option of configuring a BOT to support. A BOT would be configured to secure that all data needed for having the consultant prolonged with correct accesses is filled in properly.

6.5 Standard Vs Custom Integration maintenance for typical use cases

The following section covers the multiple functional use cases (broadly covered in section 5.5) in detail, where an action (changes to a worker record) takes place in Fieldglass, and corresponding work order create or update related data update takes place in Employee Central.

Please note, here each Fieldglass Work Order corresponds to an employment in Employee Central and represented with a blue and green color timeline bar below.

UC1 – Fieldglass Action: Creation of a New Active WO or a New Worker.
Employee Central Status: A New Worker is hired, and an employment is created with same start and end dates as that of the original work order in Fieldglass application.

Start Date   End Date

UC2 - Fieldglass Action: Update made to an existing active Work Order, **during** WO effective date.
Employee Central Status: Work Order and Employee, receive updated information from start date.

 Start Date   End Date

UC3 - Fieldglass Action: Close Action taken in Fieldglass **before** WO end date.
Employee Central Status: If a worker was replicated before is now closed in Fieldglass, then integration iflow will correct the end-date and update the employment status in Employee Central.

Start Date   Close Action Sent   End Date

UC4 – Fieldglass Action: Close Action taken in Fieldglass, by System **after** WO end date.
Employee Central Status: No change in Employee Central, as EC does use WO end date for automatically closing worker at an existing end date.

Start Date   End Date   Close Action Sent

UC5 - Fieldglass Action:
- A new WO for the same worker has been entered, which overlaps existing active WO.
- Assuming concurrent employment is enabled for contingent workers in Employee Central.
- Close Action taken by User at the end of the first Work Order.

Employee Central Status: A New WO update send through and creates new employment in EC.
Not Sent

                                                                Update

UC6 - Fieldglass Action:
- A new WO for the same worker has been entered, with NO overlapping records.
- Close Action taken by User at the end of the first Work Order

Employee Central Status: The new work order and employment is not updated. The delta is only sending the closed work order. So, it's suggested to avoid such changes in same integration run.

Sent   Not Sent

UC7 - Fieldglass Action: A new WO for the same worker has been entered, with NO overlapping records.
Employee Central Status: The new work order as well employment is updated.

Not Terminated

Update

UC8 - Fieldglass Action: Rehire a terminated worker in Fieldglass.
- A new WO for the same worker has been entered, which does **not** overlap previous WO.
- The previous WO has been in termination status.

Employee Central Status: The new work order as well employment is created.

Terminated

Rehire

UC9 - Fieldglass Action: Rehire
- A new WO for the same worker has been entered, which does overlap the previous WO.
- The previous WO has been in termination status.

Employee Central Status: The new work order and employment is created.

Terminated

Rehire

It is important to understand all these scenarios, to ensure varied business needs are covered with a custom integration for holistic solution coverage. Hence, there is a prior need to identity the use cases as well for errors, which drives integration design to accommodate varied business needs.

- **Effective-dated organization or job elements**

The contingent worker starts in business unit 10001, that has a WO start date of January 1, 2015, and end date of March 31, 2015. On February 1, 2015, the business unit changes to 20002 for this worker. The new business unit is valid from the original WO start date until the original WO end date in SAP Fieldglass.

Within Employee Central, worker has an effective date entity, but it's not supported by SAP Fieldglass. Since Employee Central can't identify the change within SAP Fieldglass, the middleware overwrites data only if the work order dates are unchanged.

- **New Manager at new effective date**

The contingent worker starts with manager "X" that has the WO start date of January 1, 2022, and end date of March 31, 2023. On January 1, 2023, the manager is changed to "Y" for this worker and the new manager has a start date in the company at the same date. Fieldglass will try to update the worker with manager "Y" from the WO start date up until the original WO end date, which will not be allowed in Employee Central, as the new Manager was not hired yet at the WO start date.

- **Handling of No Shows with different statuses**

A process change in Fieldglass can ensure that user end dates are also altered before closing the work order. If this is not the case, then logic must also be applied for the "close" status of workers in the connector, but this can lead to inconsistencies and hence not a recommended approach.

To support the issues like above, custom integration allows:
Typical transformation for general use cases like hardcoding or discarding records as common requirements which can be set in the integration to ensure consistency or better error management –

- **Discard Workers based upon criteria:**
  - Implementing an indicator in Fieldglass where procurement can decide if the user should be sent to downstream systems and that can be picked up by the integration to decide whether the worker should be sent to Employee Central. This is not possible to define in the Fieldglass output. This, or similar logic combing things like end dates, worker status, as Fieldglass updates to the work orders

could occur past end date and trigger the worker to be sent after the worker end date in the integration, even when there are no data changes relevant for Employee Central.

- **Hardcoded Values:**
  - o Simple logic can be applied to ensure values are defaulted / hardcoded in examples like IF Worker Type "Profile Worker" or other criteria, THEN set values without having to populate this in Fieldglass.

A simple way to look at the data is to identify different routes with unique logic and data validation based upon the output from Fieldglass to ensure that data is updated correctly.

A recommended approach is the following scenario structure which should check the Fieldglass data and update accordingly to the input and the data already existing in SuccessFactors Employee Central for the specific worker.

1. **New Worker** – The first scenario is to check if the worker has been created before in Employee Central. If not, then then all entities are updated with the data, and imported according to the sequence for importing employee data for Employee Central
2. **New Work Order on Existing Worker –** If the worker exists in Employee Central, but the work order does not exist, then this flow will create a new employment (from Work Order ID) and create the rest of the information required for the new employment.
3. **Update Work Order Details** – If the worker exists in Employee Central and the Work Order exists in Employee Central, but the information has been updated from the Start Date, then update and replace the Existing Work Order details and Job Information.
4. **Update Work Order Details with Effective Dates -** If there are changes that should be effective dated (like a new manager or new organization) then the update should only do two things (either extend the end date) or update the job information with relevant information from the effective date (later than the work order end date).
5. **Update Existing Worker and Work Order Details** – if the worker exists and the work order exists, and the work order start date and end date is not changes, but there is an effective date for a new change (like new manager or organization) then this route should update the job information with an incremental update at the new effective date.

An important note for all these scenarios, is that each route requires logic, hardcoding, and unique mapping according to business needs. Here, is an overview of entities and sequence of update into Employee Central which look like this:

Import Sequence	Update Existing worker details	Update Work Order Details	Update Work Order Details	New WO for existing person	New Worker
1	EmpJob	WorkOrder	WorkOrder	EmpEmployment	User
2	perEmail	EmpJob	EmpJob	WorkOrder	PerPerson
3	perPhone	perEmail	perEmail	EmpJob	EmpEmployment
4	PerPersonal	perPhone	perPhone	perEmail	WorkOrder
5	EmpEmployment	PerPersonal	PerPersonal	perPhone	EmpJob
6	PerPerson	EmpEmployment	EmpEmployment	PerPersonal	PerPersonal
7		PerPerson	PerPerson	PerPerson	perEmail
8					perPhone

Additional things to consider:

1. If you have future dated job information records and tried to create a termination before the effective date of the future change, Employee Central will not allow such a transaction. It's not integration specific, but an expected application behaviour. So, here one need to remove the future dated record first to complete termination process in the system.

2. Since the download will include all the active worker records since the last successful run date of the connector, there can be issues when a record fails for import, or the integration is offline / timed out and the record will not be processed. It's hard to identify this, which could lead to interim data inconsistencies.

7   ASSUMPTIONS AND EXCLUSIONS

- Existing CPI based integration has been taken for design considerations highlighted in the document.
- MDI based integration solution has been excluded from the detailed scope here. Please stay tuned with roadmap explorer for latest updates around this topic.

8   REFERENCES

SAP Help Portal

- SAP Fieldglass Integration
- SAP Fieldglass Integration with SAP SuccessFactors Employee Central
- Field Mapping Information
- Replicating Master Data Using SAP Master Data Integration Service

SAP Business Accelerator Hub

- Integration Package - SAP Fieldglass Integration with SAP SuccessFactors Employee Central
- Process Flow - Identity & Access Management for External Workforce

SAP Notes/KBA

- Title of the SAP Note/KBA

Implementation Design Principles

- Employee Central Core Hybrid: Handling Employee Identifiers

9 ADDITIONAL RESOURCES

SAP Help Portal

- SAP Fieldglass Connector Library
- SAP Fieldglass & SuccessFactors Employee Central Integration - Business Synopsis
- User Upload
- Legal Entity Upload
- Business Unit Upload
- Site Upload
- Active Worker Delta Single Line Download
- MDI Based Integration
- Use Cases
- Worker Management

SAP Learning Journey

- Introducing SAP Fieldglass

SAP Notes/KBA

- 3265750 - Creating Job Requisition in Fieldglass Not Respecting Business Rule - SuccessFactors Integration with Fieldglass

- 2940525 - Upsert new work order for contingent worker with concurrent employment failed - Fieldglass to SF

- 3051589 - How to locate the correct support component for SAP Standard integration packages

SAP Blogs

- Total Workforce Management with SAP SuccessFactors and SAP Fieldglass

10 APPENDIX

Known Limitations with SAP packaged integration as shown below:

- **Master Data Alignment**

At a similar point as above, data is not structured the same in Fieldglass and Employee Central. This means that when you are integrating data back and forth, there may be discrepancies with data, effective date, validations, or hierarchies that can cause invalid records and failed uploads.

- **Handling of No Shows** with different statuses

No show functionality not supported with standard integration for a contingent worker. It's only 'closed' status which is tracked down within Fieldglass system. In Fieldglass, one can close a worker on the same date as the start date to indicate No Shows. But this cannot be replicated since Employee Central does not support No Shows of external workers. In Employee Central, you can't close a work order before the actual close due date, and changing work order dates isn't supported in Fieldglass after closure.

- **OData API Calls**

OData APIs are executed in batches to avoid performance issues with redundant calls out to single entities.

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