PUBLIC

Employee Central Core Hybrid: Handling Employee Identifiers
The recommendations in this document are based on the functionality available up to SAP SuccessFactors release mentioned above. 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 recent new functionality has not yet been considered in the latest version of this document, please reach out to your Customer Success Manager / Partner Delivery Manager or send an email to SAPSuccessFactorsIDPDoc@sap.com.

Implementation Design Principles (IDPs) for SuccessFactors solutions are delivered by SAP for helping customers and partners on how to choose the most appropriate strategy and solution architecture for SuccessFactors implementations. IDPs are compiled taking into consideration the experience of many implementation projects and addressing frequent business requirements as well as real-life implementation challenges. They are continuously reviewed and updated as product functionality evolves. 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 7.
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1 TERMINOLOGY

The following table explains some abbreviations used in this document.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC</td>
<td>SAP SuccessFactors Employee Central</td>
</tr>
<tr>
<td>SAP ERP / SAP HCM</td>
<td>SAP Enterprise Resource Planning often referred in the document SAP HCM on premise system</td>
</tr>
<tr>
<td>MDF</td>
<td>Meta Data Framework</td>
</tr>
<tr>
<td>RBP</td>
<td>Role Based Permissions</td>
</tr>
<tr>
<td>Talent Suite / BizX</td>
<td>SuccessFactors Talent Suite without Employee Central</td>
</tr>
<tr>
<td>PERNR</td>
<td>SAP Personnel Number</td>
</tr>
<tr>
<td>CP</td>
<td>Central Person Object belonging to SAP ERP</td>
</tr>
</tbody>
</table>

2 ABSTRACT

Employee Identifiers play a key role in an integrated system landscape. Different requirements such as multiple employments, global assignment, single or multiple employee talent profiles adds complexity to the landscape. This IDP describes in detail the key employee identifiers that exists in EC, Talent Suite and SAP HCM as well as their relationship and mapping between each other. It also explains how these impact requirements related to multiple employment and job/talent history. This IDP provides recommendations for mapping the identifiers for both existing talent customers implementing EC as well as for green field EC implementations.

3 INTRODUCTION

With every SAP SuccessFactors implementation one of the topics that needs meticulous planning and design is the mapping of Employee identifiers. This document covers some of the important aspects involved in planning this activity.

4 BUSINESS REQUIREMENT

This document discusses the following functional requirements of employee ID mapping mainly in the following use cases.

4.1.1 Greenfield Customers

Customers who will implement SAP SuccessFactors for the first time, while they have always been using SAP on-premise as an HR core will need to align the employee IDs between different data models of SuccessFactors and SAP on-premise. For example: In Employee Central it is possible to have another record against the same employment (same UserID) during an internal transfer of an employee whereas a standard implementation in SAP ERP will result in creation of new personnel number during international transfer. Section 6.1 and Section 6.2 covers the recommendation on mapping of employee IDs for customers implementing either SuccessFactors Employee Central only or along with SuccessFactors Talent Suite respectively.

4.1.2 Existing SAP SuccessFactors Talent Suite Customers

When SAP SuccessFactors is used only as a Talent Suite (without Employee Central) then all the employee data within SuccessFactors Employee Profile is non-effective dated, and only a single UserID will exist per each person in the Instance. Thus, only a single talent history per employee will be present in a SuccessFactors BizX instance.
Employee Central provides the option to customers to have multiple UserIDs per Employee in an instance. Every new employment will then create a new UserID in SuccessFactors instance (see section 6.1). Therefore, there is a possibility to have a multiple instances of Talent history per employee. Section 6.2.2 covers the recommendation on mapping of employee IDs for customers who implement Employee Central over an existing Talent Suite.

Table 1. Employee Identifiers in Employee Central

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Description</th>
<th>Visibility - EC / Talent Suite</th>
</tr>
</thead>
<tbody>
<tr>
<td>UserID</td>
<td>Identifier for an employment record in SuccessFactors. This field can be used in various scenarios (in Employee Central &amp; Talent Modules). See sections below for more details. This field is immutable.</td>
<td>EC &amp; Talent Suite</td>
</tr>
<tr>
<td>PersonID External</td>
<td>Identifier for a person. An employee can have multiple UserIds though it will be having only single instance of person id external. This field is only relevant when Employee Central is implemented. This field is mutable.</td>
<td>EC Only</td>
</tr>
<tr>
<td>UserName</td>
<td>Value with which a user logs into the SuccessFactors instance. This field is mutable.</td>
<td>EC &amp; Talent Suite</td>
</tr>
<tr>
<td>Assignment ID</td>
<td>Assignment ID (assignment_id_external) is a newly introduced mutable ID that identifies work relationship between the personnel and the company. The relationship could be employment relationship, contingent relationship, pensioner relationship, global assignment, intern or others. It is available from release Q3 2019. Objectively, Assignment ID is similar to the User ID assigned to all personnel in the company. However, Assignment ID is flexible to accommodate changes unlike UserID.</td>
<td>EC &amp; Integration with SAP ERP HCM (limited adoption in Talent Suite)</td>
</tr>
</tbody>
</table>

5 SOLUTION OVERVIEW AND CONCEPTS

This section provides some basic information around important employee identifiers available in SuccessFactors and how they are managed as well as mapped to SAP HCM. This document discusses the most relevant employee identifiers listed in Table 1.

5.1 Employee IDs and Employments in SuccessFactors

When Employee Central is not active or not implemented at a customer’s BizX Instance (for example, in the case of a customer deploying single modules like Performance and Goals, Learning, etc), the central repository for employee data in the BizX Instance is the Employee-Profile (EP). That means, for non-Employee Central customers, who are using Talent modules in BizX the employee hiring process will take place outside of BizX instance. Once the hiring is complete in the source system, the employee data is replicated into SuccessFactors (preferably by means of an available Integration Interface). In this scenario, only the Employee Profile fields UserID, Assignment ID External and UserName are relevant identifiers for employees within the BizX Instance. In other words, for BizX customers without Employee Central, an employee will always be identified (in BizX) by a single UserID and a single Username.

When Employee Central is implemented and live in the customer’s BizX instance, during a new hire process in Employee Central, all the IDs mentioned above are generated, including the PersonID External. By default, UserID is auto-generated while Username and PersonID External are copied from UserID. In addition, the newly added employee identifier assignment ID (assignment_id_external) from release Q3 2019, is created automatically by the system for users prior to Q3 2019. It's value is same as the UserID. Assignment ID can also be generated by business rules in Employee Central instance. In such a case, the assignment ID value
is created based on the rule and not on the UserID. Thus, all the four fields can have the same value after new hire process is completed, though this default behavior can be changed via Business Rules, so that each one of them can get a specific value which can be different from each other (for a new hire Person ID External and user D will always be same). With Employee Central, an employee can have multiple instances of UserID, Assignment ID external, Username but only one single instance of PersonIDExternal. With every new employment for a Person, a new instance of UserID, Assignment ID and Username are created.

Usage of field Assignment ID is recommended for green field customers who are implementing SuccessFactors for the first time and it mainly address the following business cases:

**Use cases of Assignment ID:**

- **Employee Central Implementation After a Talent Hybrid Integration:** When Employee Central implementation is being implemented after a talent hybrid integration, the employee profile field UserID is mapped to either the infotype 709 or a central person in SAP ERP HCM. Now, with EC implementation, the customer would like to ensure that instead of this mapping they would like to map the personnel assignment(PERNR). In previous releases before 1908, the customer/partner had to request SAP Support to run the process of changing the UserIDs of all employees to have it mapped to personnel assignment(PERNR). With release 1908 onwards, customers can now take advantage of the field Assignment ID and the function import `convertAssignmentIdExternal` that is available to change the mapping by themselves without creating a SAP Support ticket to do. They can now run this function import to map personnel assignment(PERNR) to the assignment ID field in the basic template.

- **Relocation:** Some customers have different User ID format for employees based on region. So, when an employee transfers to a different location, the customer requests a conversion. In order to prevent User ID conversion, he can use the Assignment ID.

- **Mergers & Acquisitions:** Customer completes an acquisition and needs to After the acquisition, the customer imports users using old IDs to integrate the new employees into the BizX. At a later date, the customer wishes to standardize the User IDs.

- **Also in cases as rehire of a former employee.** In all these cases, SuccessFactors performs a user id conversion through which BizX user ids are converted to a new value provided by the customer.

The following table 2. lists some of the scenarios during which new UserIDs are created.

<table>
<thead>
<tr>
<th>Business Process</th>
<th>BizX / EC / Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Hire (EC) or Basic User Upload (Employee Profile)</td>
<td>Both</td>
</tr>
<tr>
<td>Rehire with new Employment (Used for scenarios related to International Transfer)</td>
<td>EC Only</td>
</tr>
<tr>
<td>Global Assignment</td>
<td>EC Only</td>
</tr>
<tr>
<td>Concurrent Employment</td>
<td>EC Only</td>
</tr>
</tbody>
</table>

**Table 2: Various Employments Scenarios**

**5.2 SAP SuccessFactors Employee Data Model**

The below mentioned figure 1. shows SAP SuccessFactors Data Model (with database tables) used in employee identifiers.
Figure 1: Employee Identifiers in SAP SuccessFactors Data Model

*Disclaimer: The figure above is only a pictorial representation of backend SuccessFactors tables. Figure above should not be interpreted as an actual database structure. Also, note that the table structure can be subject to change anytime and is shown for better understanding of the employee identifiers as of date of writing this document.

The identifiers PERSON_ID and EMPLOYMENT_ID are internal IDs within SuccessFactors. The only IDs relevant and available externally are:

- USERS_SYS_ID (UserID),
- USERS_SYS_USERNAME (User Name)
- PERSON_ID_EXTERNAL (PersonIDExternal – Relevant only when Employee Central is part of the Suite)
- ASSIGNMENT_ID_EXTERNAL( AssignmentID )

In a SuccessFactors environment (BizX instance) without EC, the table USERS_SYS_INFO, responsible for driving the Employee Profile data, is the only one relevant for storing employee identifiers. However, it is interesting to note that the user-related entries in Employee Central tables EMPLOYMENT_INFO and PER_PERSON are automatically created whenever new entries are added to USER_SYS_INFO, even if the customer has not even implemented nor have licenses for Employee Central yet.

In a SuccessFactors environment with EC, with every new employment for an already existing Person in the system, new records are created in tables: EMPLOYMENT_INFO, USERS_SYS_INFO. With every new Person to be added to the system, table PER_PERSON is updated. In a SuccessFactors environment with EC, the minimum entities (upload templates/APIs) that are required to create an employee are as below:

- Basic Import (basicUserInfoImport/UDF/User)
- Biographical Information (personInfoImport)
- Employment Details (employmentInfoImport)
- Personal Information (personalInfoImport)
- Job History (jobInfoImport)
In a SuccessFactors environment (BizX instance) without EC, only User entity is needed for user creation.

5.3 Comparison of Employee Data Models in SuccessFactors EC and SAP ERP HCM

This section provides a comparison between data model of EC and SAP ERP HCM. Please note that the information provided in this section is for reference purposes only. Please refer the relevant implementation guides for detailed explanation. Employee Central Data Model is shown below:

<table>
<thead>
<tr>
<th>OBJECT</th>
<th>DEFINITION</th>
<th>EXAMPLE / data stored</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person</td>
<td>Unique identification of the person, reflecting the natural person in whom</td>
<td>Mike 25 Main St., San</td>
</tr>
<tr>
<td>Employment</td>
<td>the company has an interest.</td>
<td>Francisco <a href="mailto:mike@sap.com">mike@sap.com</a></td>
</tr>
<tr>
<td>Job Info</td>
<td>Information such as hire date, rehire date, seniority date... that does</td>
<td>Home employment Host</td>
</tr>
<tr>
<td>Compensation Info</td>
<td>Time-dependent job related information</td>
<td>employment Host</td>
</tr>
<tr>
<td>Deductions</td>
<td>Time-dependent compensation information</td>
<td>Concurrent employment 1</td>
</tr>
<tr>
<td></td>
<td>...</td>
<td>Concurrent employment 2</td>
</tr>
</tbody>
</table>

Figure 2: SAP SuccessFactors Data Model

SAP ERP Data model is depicted below in figure 3:

<table>
<thead>
<tr>
<th>OBJECT</th>
<th>DEFINITION</th>
<th>EXAMPLE / data stored</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Central) Person</td>
<td>A natural person in whom the company has interest</td>
<td>Mike 25 Main St., San</td>
</tr>
<tr>
<td>PERNR</td>
<td>The PERNR represents the contract(s) of one person which, subject to the</td>
<td>Francisco <a href="mailto:mike@sap.com">mike@sap.com</a></td>
</tr>
<tr>
<td></td>
<td>legislation of the country and to company policies, are to be considered</td>
<td>1/1/14 – 6/30/14 Salary</td>
</tr>
<tr>
<td></td>
<td>jointly for payroll and which are not concurrent in their timelines.</td>
<td>1/1/14 – 6/30/14 Salary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1/1/14 – 6/30/14 Cost Center</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1/1/14 – 6/30/14 Company A</td>
</tr>
</tbody>
</table>

Figure 3: SAP ERP Data Model
5.4 HRIS Synchronization Job

In a SuccessFactors environment (BizX instance) without EC, Employee Profile (EP) is updated directly during user updates or is being fed with data from the masterdata source system via an integration interface. For example, SAP HCM employee data can be fed into BizX instance via Talent Hybrid integration with the help of HRIS Sync Job. For Employee Central customers, EP is fed with data from EC Database tables via the use of BizX “HRIS Synchronization job”.

6 DETAILED SOLUTION

6.1 Employee ID Mapping for Green Field Customers

6.1.1 Employee Central and SAP ERP HCM Integration

For all Employee Central integration with a SAP ERP HCM system, the following employee ID mapping is recommended:

<table>
<thead>
<tr>
<th>SuccessFactors Employee Central</th>
<th>SAP ERP HCM</th>
</tr>
</thead>
<tbody>
<tr>
<td>UserID</td>
<td>SAP ERP Personnel Number (PERNR)</td>
</tr>
<tr>
<td>Assignment ID</td>
<td>SAP ERP Personnel Number (PERNR)</td>
</tr>
<tr>
<td>PersonID External</td>
<td>SAP ERP Central Person object (CP) OR Infotype 709 field PERSONID_EXT (IT0709)</td>
</tr>
<tr>
<td>User Name</td>
<td>Infotype 105 and subtype 0001 (IT0105/0001)</td>
</tr>
<tr>
<td>Assignment ID</td>
<td>SAP ERP Personnel Number (PERNR). Customers can choose to map either User Id or Assignment ID to PERNR.</td>
</tr>
</tbody>
</table>

Table 3: Employee Central and SAP ERP HCM System Employee ID Mapping

A one-to-one mapping between SuccessFactors UserID and SAP ERP Personnel number will ensure that any retroactive changes or change in time slices for an employee in SuccessFactors does not impact multiple SAP ERP Personnel numbers. Mapping of the field Assignment ID (available in User Entity, Employment Entity and Global Assignment) is also possible with SAP ERP Personnel number. Creating a new employment has few implications in Employee Central because with every new employment, a new UserID is created, for which a new Talent History is associated. Section 6.1 explains the scenarios in which a new employment is created in SuccessFactors Employee Central.

Specifically, for mapping PersonID External, it is recommended that if IT0709 already exists in the system then you can use that number for mapping PersonID External or otherwise CP can be used. As explained in the section below, customers can use IT0002-PERID to update IT0709 in a standalone SAP ERP system. If this is the case then it is not recommended to use IT0709 for mapping SuccessFactors PersonID external field because this can be sensitive information, for example SSN number. With BIB based integrations, update of IT0709 is now optional and can be mapped with any Employee Central field. For customers moving from SAP ERP to Employee Central as their core HR system, you can also fill Assignment ID field as explained in below.

- **Usage of Infotype 0709 (Person ID) in EC-ERP Productized Integrations**

In a standalone SAP ERP system, Infotype 0709 is relevant only when “Management of Global Employees” module is activated in SAP ERP. Please note that in SAP ERP, following options exists for the customer, for the Person ID generation rule using the CCURE_PIDGN switch:

1. Same as the Central Person Object (CP)
2. Same as the number of the first personnel assignment (PERNR)
3. Same as the person ID stored in the Personal Data infotype (0002), field PERID.
4. Any customer-determined value, which can be achieved with Badi HR_CE_PERSONID_EXT
In BIB (Business Integration Builder) based productized integrations, customers need to explicitly configure and perform relevant field mapping in order to populate SAP ERP’s infotype 0709 from EC. Infotype 0709 is not a mandatory infotype required for the replication interface to work. In the legacy (non-BIB based), productized integrations, IT0709 is auto-updated with the value of SuccessFactors EC PersonIDExternal field.

- **Mapping of EC Identifiers with SAP ERP HCM involving Infotype 0709 (Person ID)**
  In the figure below, you will find a diagram that illustrates the mapping and flows of Person and employments/assignments between EC and SAP ERP as per the productized EC-ERP integrations.

![Diagram of EC and SAP HCM integration](image-url)

Countries A & B could be managed in separate SAP HCM systems, in which CP differ. Unique common identifier = IT0709
As shown in the figure above, during migration to SuccessFactors EC (see arrows 1, 2 and 3), SAP ERP personnel number is mapped to SuccessFactors UserID and IT0709 is mapped to EC PersonID External. See employment 1, in the figure above which shows that during migration the employee key mapping table (ECPAO_EE_KMAP) needs to be updated (before EC to SAP ERP replication is initiated) with the details from employment 1. The CP-PERNR (SAP ERP Central Person - SAP ERP Personnel number) relationship is expected to exist in the system. To include the assignment ID during the migration process, you need to enable the switch ERP to ER/EC to ERP (BIB): Activate Assignment ID External in the view V_ECPAO_CONSTANT on SAP ERP system. The AssignmentID External field is possible to be included in the User, Employment, and Global assignment entity during the migration of the employee data to EC.

For replication (EC to SAP ERP) same mapping is utilized (see arrows 4, 5, 6 and 7). In other words, SuccessFactors UserID is replicated to SAP ERP Personnel number and SuccessFactors PersonID External is replicated to IT0709. During replication, the employee key mapping table (ECPAO_EE_KMAP) is updated with a new entry and also the CP & PERNR is also created accordingly. See employment 2, in the figure above.

Please refer to the Implementation guide *Replicating Employee Master Data and Organizational Assignment from Employee Central to SAP S/4* under the chapter ‘Important Notes About Assignment ID in Employee Central Integration with an ERP system for further details’ to know how to handle Assignment ID during migration from SAP ERP and replication to SAP ERP system.

- **Mapping of EC Identifiers with SAP ERP HCM excluding Infotype 0709 (Person ID)**
  In the figure below, you will find a diagram that illustrates an alternative (but also standard) version of the mappings and flows, for the integration between EC and SAP ERP HCM identifiers. This version does not include Infotype 0709 in the mappings.
Figure 5: Replication without IT0709
As shown in the figure above, during migration to SuccessFactors EC (see arrows 1, 2 and 3), SAP ERP personnel number is mapped to SuccessFactors UserID and SAP ERP Central Person object is mapped to EC PersonID External. See employment 1, in the figure above. During migration the employee key mapping table(ECPAO_EE_KMAP) is updated (before EC to SAP ERP replication is initiated) with the details from employment 1. The CP-P (SAP ERP Central Person - SAP ERP Personnel number) relationship is expected to exist in the system. For replication (EC to SAP ERP) same mapping is utilized (see arrows 4, 5, and 6). In other words, SuccessFactors UserID is replicated to SAP ERP Personnel number. During replication, the employee key mapping table is updated with a new entry and also the CP-PERNR is also created accordingly.

Please refer the Implementation guide on Replicating Employee Master Data and Organizational Assignment from Employee Central to SAP S/4 under the chapter ‘Important Notes About Assignment ID in Employee Central Integration with an ERP system for further details’ to know how to handle Assignment ID during migration from SAP ERP and replication to SAP ERP system.

6.1.2 SuccessFactors Talent Suite (without EC) and SAP ERP HCM

For all non-Employee Central Projects, we have the following recommendation for employee ID mapping:

<table>
<thead>
<tr>
<th>SuccessFactors BizX</th>
<th>SAP ERP</th>
</tr>
</thead>
<tbody>
<tr>
<td>UserID</td>
<td>PERNR OR CP</td>
</tr>
<tr>
<td>User Name</td>
<td>IT0105 subtype 0001</td>
</tr>
</tbody>
</table>

Table 4: BizX Suite ID Mapping with SAP ERP

Unless a customer wants to maintain multiple talent histories per employee, specifically for mapping UserID, it is recommended that customers should map it to SAP ERP Personnel Numbers only if they do not have employee mobility scenarios (such as global assignment and international transfers) in the company. For all other cases it is recommended that they can use SAP ERP Central Person as UserID in SuccessFactors. In all circumstances for such customers, it is recommended that customers only maintain single instance of the employee (single UserID) in SuccessFactors, against an employee in SAP ERP (with multiple Personnel numbers).

For customers requiring multiple talent records (one against each SAP ERP personnel number) in SuccessFactors, recommendation is to map UserID (or Assignment ID) to SAP ERP personnel number. Do note that these recommendations do not mean that SuccessFactors and SAP ERP have any hard checks that exactly validate these mappings. The recommendations are originating from the fact that it will be easier to map and find out employee in SuccessFactors if they were known by a specific employee id in SAP ERP. Similarly, if there are several ERP systems then it is recommended to perform the mappings which is same in most of the ERP systems.

6.2 Employee ID Mapping for Existing SuccessFactors Talent Suite Customers (Implementing Employee Central)

For Talent suite customers (without Employee Central deployed) the Employee Profile is the central employee masterdata repository within the BizX instance. The Employee Profile does not support effective-dated masterdata, and also the concept of multiple employments related to a person is not available. It is recommended that once Employee Central is live, none of the APIs or provisioning jobs that directly update employee profile user attributes should be used. See picture below for the jobs that can be used to import employee data. Do not use the provisioning job Employees Import if Employee Central is already implemented.
Such talent customers have either mapped Employee Profile users to the SAP ERP Central Person (CP) or to the SAP ERP Personnel Number. When implementing Employee Central after one or more Talent modules have been productively used, consideration needs to be given to the conversion and ongoing usage of Employee IDs and their conversion and mapping between Employee Central and SAP ERP.

### 6.2.1 Transition to Standard Employee Mapping Between SuccessFactors and SAP ERP

In case the talent suite customer had originally mapped the SAP ERP CP (or any other value) to SuccessFactors Users, the question arises on how to convert or map these UserIDs in BizX so that it can now match the values of SAP ERP Personnel Number. There are three options for achieving this conversion which is explained below:

1. **Implement EC and Talent in new BizX instance**

   In this approach, Persons and employments (with the standard ID mapping) are uploaded/migrated to EC in a new instance and the talent data from the old instance is migrated to the new instance into the corresponding employee’s main employment. This approach will require an evaluation of Talent and Learning configuration which is being copied over as mapping Employee data from Employee Central will introduce some changes which need to be accounted for.

   Points to consider for SAP SuccessFactors Learning Solution (note that this is not an exhaustive list):
   - In Learning – an update to PERSON_GUID for all users based on a new one getting generated within Employee Central,
   - modifying Assignment Profile rules to account for organizational and employee data coming in from Employee Central
   - Examining integration setup since the source of employee and organizational data is changed.

   Points to consider for talent (note that this is not an exhaustive list):
   - RBP set up may require modifications to read data elements driven by Employee Central versus earlier Employee Profile sourced values.
   - These are some of the generic changes expected, but an evaluation of each customer-specific set up will be required.
• This will also require customers to test all the implemented talent modules so that after conversion, users are still able to access and operate SuccessFactors Talent and Learning functionality as expected.

The advantage of this approach is that semantically every employee id is aligned according to the standard mapping between SuccessFactors and SAP ERP.

2. **Perform UserID Conversion service in the Existing Instance**

In this approach, SuccessFactors UserID conversion is performed at the database level. This service has to be scoped with SAP Professional Services and involves costs which will depend on the complexity of the corresponding case. SAP SuccessFactors does not recommend such database-level changes unless it is absolutely needed. In order to avoid such future cases requiring UserID conversion, the newly introduced field assignment ID should be used for all new customers implementing EC from Q3 2019 release.

**Limitations:** The User ID conversion service cannot be performed if the following functionality has already been implemented – Employee Central, MDF objects, Learning (LMS), Onboarding, WFA, Mobile; additionally, if the customer is using Data Privacy and Protection Reports (Change audit/Read audit/ Data subject information).

Please refer to KBA 2088176 - Manage Users: User ID Conversion process and frequently asked questions – Platform, for additional information related to this topic. Existing talent customers who implement Employee Central, can avoid User ID Conversion by making use of the assignment ID field.

3. **Implement EC in current Talent instance, retain current value (CP) as user ID (Recommended Approach)**

This approach, does not involve UserID conversion in BizX and does not require a new BizX instance. The approach involves enriching the existing SuccessFactors UserID (whose value is same as CP) in Employee Central (as part of migration) with all the details from the latest personnel assignment (SAP ERP Personnel Number) in SAP ERP. By means of the employee mapping table ECPAO_EE_KMAP in ERP, the current UserID (whose value is same as CP) record in Employee Central is mapped to current active assignment (SAP ERP personnel number) of a person in SAP ERP. Subsequent employments (PERNRs) of the same person are mapped to EC with the standard approach (SuccessFactors UserID= PERNR, SuccessFactors PersonID External = SAP ERP CP/IT0709). The figure below explains this mapping logic for employee scenarios such as hire, transfers and global assignment in a SuccessFactors instance with (and without) Employee Central:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>SAP ERP</th>
<th>SuccessFactors without Employee Central (Before EC deployment)</th>
<th>SuccessFactors with Employee Central (same Instance, after EC deployment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employments</td>
<td>PERNR</td>
<td>UserID Assignment ID</td>
<td>UserID PersonID External</td>
</tr>
<tr>
<td>New Hire / Existing Employment</td>
<td>123</td>
<td>673</td>
<td>673</td>
</tr>
<tr>
<td>International Transfer</td>
<td>456</td>
<td></td>
<td>456</td>
</tr>
<tr>
<td>Global Assignment/ Concurrent Employment</td>
<td>909</td>
<td></td>
<td>909</td>
</tr>
</tbody>
</table>

**Table 5: Key Mapping by separate employments**

In the example above, the latest employment (PERNR = 123) is mapped as SuccessFactors User ID (User ID = 673) in the existing SuccessFactors Talent Instance. Upon deployment of Employee Central (as part of migration), the existing User ID (User ID = 673) is enriched with the data from latest personnel assignment (PERNR = 123). Any future dated employments (such as PERNR = 456, 909) are then migrated with the same value in SuccessFactors Employee Central ((User ID = 456, 909). With the SuccessFactors Employee Central release Q3 2019 onwards, customers can leverage the benefits of assignment ID field. Assignment ID field helps prevent User ID conversion by allowing assignment ID to be editable through function import
convertAssignmentIDExternal and at the same time keep the User ID values intact. Please refer the ODATA API Reference Guide on how to use this function import.

Please note in case of Core Hybrid scenario using standard productized integrations for EC-ERP integrations, the employee key mapping tables (ECPAO_EE_KMAP in SAP ERP) should correctly map SuccessFactors UserID with SAP ERP Personnel number, as in the case above SuccessFactors User ID 673 should be mapped to SAP ERP Personnel number 123.

A variant of above approach could also exist, in case the customer activates the option to assign multiple employments in ERP to a single employment record in EC. However, this option is as of 1811 no longer recommended. The option to keep employments separate (using Rehire with New Employment functionality) in case of employee transfers is recommended going forward. The figure below shows how the ID mappings would look like, if employments in EC are re-used for multiple PERNRs:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>SAP ERP</th>
<th>SuccessFactors without Employee Central (Before EC deployment)</th>
<th>SuccessFactors with Employee Central (same Instance, after EC deployment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>PERNR CP</td>
<td>UserID</td>
<td>UserID PersonID External</td>
</tr>
<tr>
<td>New Hire/Existing Employment</td>
<td>123 673</td>
<td>673</td>
<td>673 673</td>
</tr>
<tr>
<td>International Transfer</td>
<td>456</td>
<td></td>
<td>673 673</td>
</tr>
<tr>
<td>Global Assignment/Concurrent Employment</td>
<td>909</td>
<td></td>
<td>909 673</td>
</tr>
</tbody>
</table>

Table 6: Key Mapping with glued employments (contracts separated job info records)

4. For customers who have previously implemented talent and are now implementing Employee Central as their Core HR system should consider to update Assignment ID field in Employee Central in the following manner:
   - Implement the note 2890408 - Assignment ID External in Employee Data Extraction for Talent Hybrid customers in SAP ERP
   - Execute a custom report to update the key mapping table ECPAO_EE_KMAP for all employees who have been previously migrated using Talent hybrid. This also ensures that employee number(PERNR) is equal to Assignment ID.
   - In the IMG customizing view for Company Settings ‘V_ECPAO_CMPNY_EE’, ensure the mapping mode for User id field is set to Standard mapping
   - Execute the employee data extraction ECPAO_EMPL_EXTRACTION

SAP recommends the approach 4(if customer needs the Assignment ID external for all employments equal to the PERNR if this is not needed then option 3 can also be considered.) as shown in Table 7, in which no UserID conversion is needed at the database level in SuccessFactors. Advantages of this approach are that not only customer save the time and costs on UserID conversion but also any module verification/tests. In addition, the HRIS sync mapping need not be updated and will continue to be maintained as is and the key mapping table on SAP ERP is updated correctly for all employees

A comparison of the approaches is given below:

<table>
<thead>
<tr>
<th>Options/Scenario</th>
<th>Option 1/2 – Convert/Migrate SF UserID to SAP ERP Personnel No.</th>
<th>Option 3 – No conversion, continue with same SuccessFactors UserID</th>
<th>Option 4 – Usage of Assignment ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project complexity</td>
<td>Increased project complexity:</td>
<td>Limited project complexity increase:</td>
<td>Relatively Less project complexity:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>❑ No need to migrate</td>
<td>❑ Create a simple custom report to</td>
</tr>
</tbody>
</table>
Table 7: Talent Suite to EC mapping options

6.2.2 Existing Talent Suite Customers requiring Downstream Integrations from EC

Based on the above points mentioned in the sections above, on existing BizX customers or net new customer implementing Employee Central, following are some of the recommendations for using employee ids in the downstream integrations:

- The best possible option is to use SuccessFactors UserID field for all downstream integrations. For example: If SAP ERP personnel numbers were used for all integrations, then with EC, personnel numbers can be mapped to SuccessFactors UserIDs. This will ensure that for integrations no value mappings, no additional logic and custom EC fields are required to be maintained.
- In addition to the SuccessFactors UserID, in case personnel numbers cannot be mapped exactly with UserID then Payroll-ID field in the EC compensation portlet can be used. Usage of this field makes most sense when most of the downstream integration use same id (such as personnel number) and UserID does not match with SAP ERP personnel number.
  - See an example mapping the figure below.

Table 8: Mapping with Payroll-ID field

• In case there are several downstream integrations and each one of them use a different identifier, then the recommendation will be to first check the possibility of mapping these ids in the 3rd party
receiving system itself, so that in SuccessFactors UserID can be used or Assignement ID and there is no need for additional maintenance. In case this cannot be achieved, then one of the options is to create a user based custom MDF and write look ups in the integration layer to retrieve specific ID for the 3rd party provider against a SuccessFactors UserID. An example of such an MDF is shown below.

![Employee ID Mapping](image)

Figure 7: Multiple identifiers per integration

Note: The names of the 3rd party systems and employee id format may not be the same as the required by the actual system. Figure above is only used for informational purposes.

6.3 Existing BizX Customers with Non-Standard Implementation in SAP ERP

This section is most relevant for all customers who followed a non-standard way of implementing the existing SAP ERP. SAP productized integrations do not support any integration with a system that follows non-standard way of SAP ERP implementation. On such example is manual changes to employee records in SAP ERP, rather than executing an international transfer, causing the same employee (with same personnel number) having records for multiple countries.

Therefore, for such customers, it is recommended that they upload the latest employment record (top of stack) in EC from SAP ERP and use an FTSD as late as possible. See an example below, Customer has been using same personnel number (PERNR = 1000), when the employee was in UK or US. In order to setup EC-ERP replication, latest employment record from ERP can be used to upload “New Hire” record in EC. From the example below, customer can use the employment when employee was in UK, as the record to be uploaded onto EC as the first employment. Henceforth, any changes to the employee record such as international transfer will follow standard process of creation of new personnel number. Therefore, when the same employee moved from UK to US, this will create new personnel number (PERNR = 2000) in ERP.

![Setup for replication for non-standard implementation](image)

Figure 8: Setup for replication for non-standard implementation
Such a setup may require customer to re-configure existing ERP systems. This may also re-test some of the
downstream integrations such as Identity access management for update of username and email, provided
these integrations were triggered from ERP. Please note that the splits between the records falling within FTSD
should be same on ERP and EC, otherwise, (only BIB based) productized integrations are designed to auto-
split the records in ERP, during replication, with start date same as FTSD.

7 REFERENCES

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- Replicating Employee Master Data and Organizational Assignment from Employee Central to SAP S/4
  HANA On Premise
- SAP SuccessFactors Platform - Managing User Information

KBAs
- 2080728 - Employee Central: What is HRIS Sync?
- 2507190 - HRIS Sync: Downstream Impacts to other SAP SuccessFactors HCM modules
Implementation Design Principle

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