



**SAP SuccessFactors** 

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# **Integrating SAP ERP HCM with Employee Central Using the Core Hybrid Deployment Option**

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# Change History

Learn about changes to the documentation for Integrating SAP ERP with Employee Central Using the Core Hybrid Deployment Option in recent releases.

## 2H 2021 – Present

Type of Change	Description	More Info
None	We did not update this document.	

## 1H 2021

Type of Change	Description	More Info
Changed	The SAP Cloud Platform Integration brand has been retired. We've updated this guide with the new SAP Cloud Integration brand accordingly.	

# 1 What Is the Core Hybrid Deployment Option?

The Core Hybrid deployment option is an integration model you can use to transfer your HR solutions to SAP SuccessFactors, yet keeping the cloud system integrated with your existing on-premise SAP ERP system landscape.

It enables you to transition to SAP SuccessFactors Employee Central in phases while growing or modernizing your system landscape, and to benefit from existing investments you've made in your on-premise systems. That is, you move all or most of your HR processes – mainly Personnel Administration and Organizational Management – to the cloud, integrating the HR data with SAP ERP on premise processes, such as Payroll or Time Management. We provide productized integrations for that, which connect SAP ERP on-premise solutions with SAP SuccessFactors.

In the next sections, you'll get an overview the different deployment options you can use when integrating Employee Central with SAP ERP. Then you'll see what the Core Hybrid deployment option means in detail and whether it is the right option for you.

## [Deployment Options Available for Integrating Employee Central with SAP ERP \[page 5\]](#)

Learn more about the various deployment options we provide if you want to run Employee Central together with an SAP ERP system.

## [The Core Hybrid Deployment Option \[page 6\]](#)

Find out what the Core Hybrid deployment option is meant for when you integrate SAP SuccessFactors Employee Central with SAP ERP.

## [Is the Full Cloud or the Core Hybrid Deployment Option the Right One for Me? \[page 8\]](#)

Compare the features of these deployment options to find out which is the one you want to use when integrating Employee Central with SAP ERP.

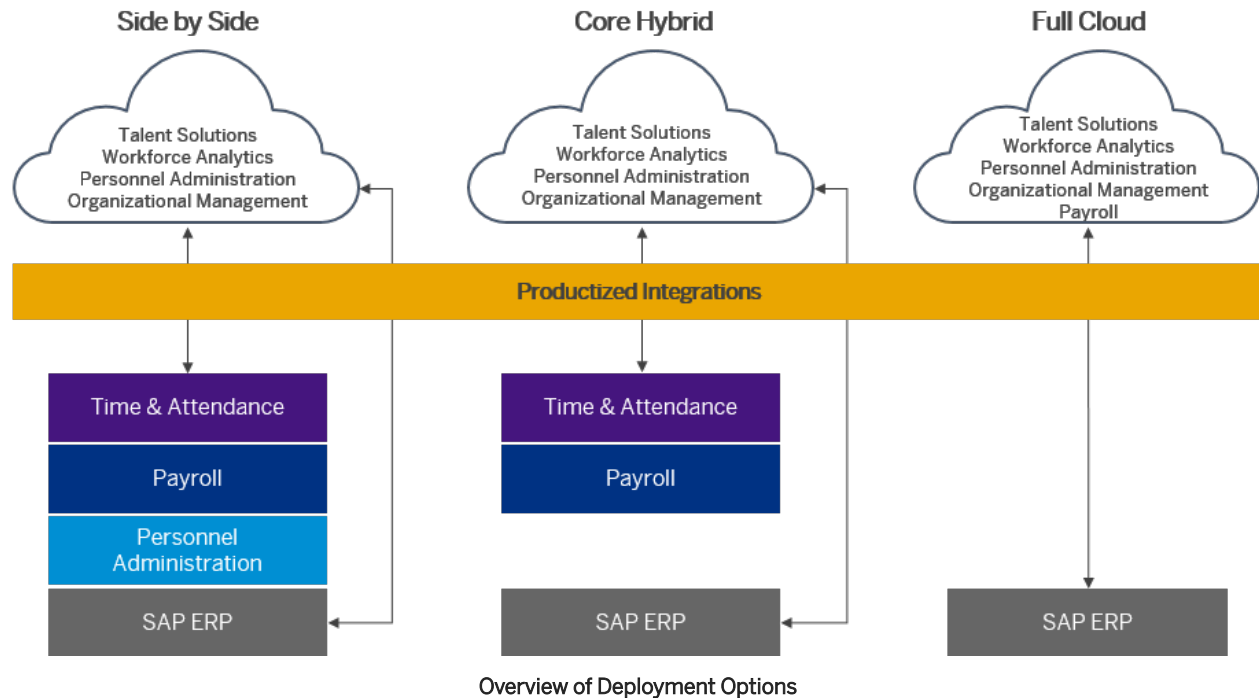
## [Integration Guides Relevant for the Core Hybrid Deployment Option \[page 9\]](#)

Here's an overview of the integration guides you should read when using the Core Hybrid deployment option.

# 1.1 Deployment Options Available for Integrating Employee Central with SAP ERP

Learn more about the various deployment options we provide if you want to run Employee Central together with an SAP ERP system.

Here's an overview:



And here's what these deployment options mean in detail:

## Side-by-Side HXM

You use Employee Central as the cloud-based core HR system for a subset of employees. SAP ERP is retained as the core HR system for another subset of employees. If you use this deployment option, Employee Central is the consolidated system, which provides centralized access to all HR data. That's why HR data that's maintained in SAP ERP needs to be replicated to Employee Central.

## Core Hybrid HXM

You use Employee Central as the system of record holding HR data. Existing HR processes such as Payroll, Time Management, or custom processes still run in an SAP ERP system landscape. If you use this deployment option, the HR data maintained in Employee Central needs to be replicated to the SAP ERP system to support the local processes running there.

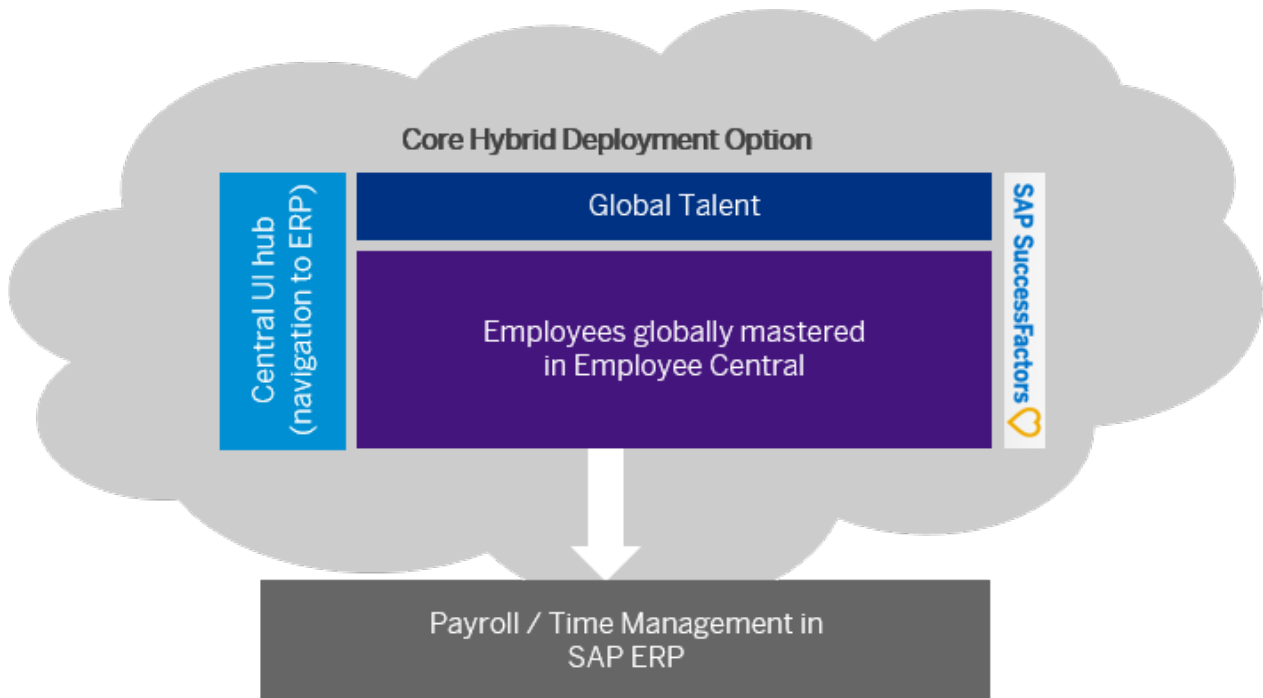
## Full Cloud HXM

All HR processes run in SAP SuccessFactors. If you use this deployment option, SAP SuccessFactors is the system of record holding all HR data and hosting all HR-related processes. But non-HR processes, such as Financials or Project Management, still run in an SAP ERP system landscape. Some of these processes need HR data, that's why the HR data maintained in Employee Central needs to be replicated to an SAP ERP system.

## 1.2 The Core Hybrid Deployment Option

Find out what the Core Hybrid deployment option is meant for when you integrate SAP SuccessFactors Employee Central with SAP ERP.

Here's an overview:



Overview of Core Hybrid Deployment Option

The Core Hybrid deployment option does not only cover data integration between Employee Central and SAP ERP. It also supports various HR processes, such as international transfer or global assignment. And it provides options for integrating SAP ERP user interfaces into Employee Central. That is, it is based on these three pillars:

Pillars of Core Hybrid Deployment Option

Data	Process	User Experience
Builds the foundation for data integration between SAP ERP and SAP SuccessFactors	Supports end-to-end HR processes by using bidirectional integration	Provides a unified access for end users to all HR processes, regardless of which back-end system holds the requested data

Some more info about the features this deployment option provides:

- You can move your core HR processes to the cloud, but retain other processes, such as Payroll or Time Management, on premise.
- You use Employee Central as the system of record. Meaning, the data of all employees is maintained there.
- Employee master data is replicated from Employee Central to SAP ERP to support the processes you still run on premise (such as Payroll or Time and Attendance) for the employees whose system of record is Employee Central.
- You can use the SAP SuccessFactors home page as a global UI hub. That is, employees and managers access their data using Employee Central.
- Data is always changed in the appropriate system of record.
- You can feed the Employee Profile for all employees from one system, Employee Central.
- You handle your organizational structure in Employee Central and replicate it to the SAP ERP system if organizational data and reporting lines are needed there.

## 1.3 Is the Full Cloud or the Core Hybrid Deployment Option the Right One for Me?

Compare the features of these deployment options to find out which is the one you want to use when integrating Employee Central with SAP ERP.

Full Cloud and Core Hybrid Deployment Options

For this feature...	These are your options when using Full Cloud...	And here's what you should consider...	These are your options when using Core Hybrid...	And here's what you should consider...
	Payroll	Run Payroll in the cloud, using Employee Central Payroll	<p>Employee Central Payroll provides a better user experience</p> <p>Most of the configuration capabilities provided for Payroll on premise are also available in Employee Central Payroll</p> <p>Makes sense if you haven't made major modifications by implementing enhancement spots</p>	Run Payroll on premise
	Run Payroll in the cloud, using a third-party payroll integration (for example, with ADP Payroll, NGA Payroll, or BS)			
Time Management	Run Time Management in the cloud, using Employee Central Time Off and Time Sheet		Run Time Management on premise	<p>Makes sense if Employee Central Time Off and Time Sheet don't suit your requirements</p> <p>You can retain your existing implementation of SAP ERP Time Management</p>



For this feature...	These are your options when using Full Cloud...	And here's what you should consider...	These are your options when using Core Hybrid...	And here's what you should consider...
	Run Time Management in the cloud, using a third-party payroll integration (for example, with Workforce Software or Kronos)			

## 1.4 Integration Guides Relevant for the Core Hybrid Deployment Option

Here's an overview of the integration guides you should read when using the Core Hybrid deployment option.

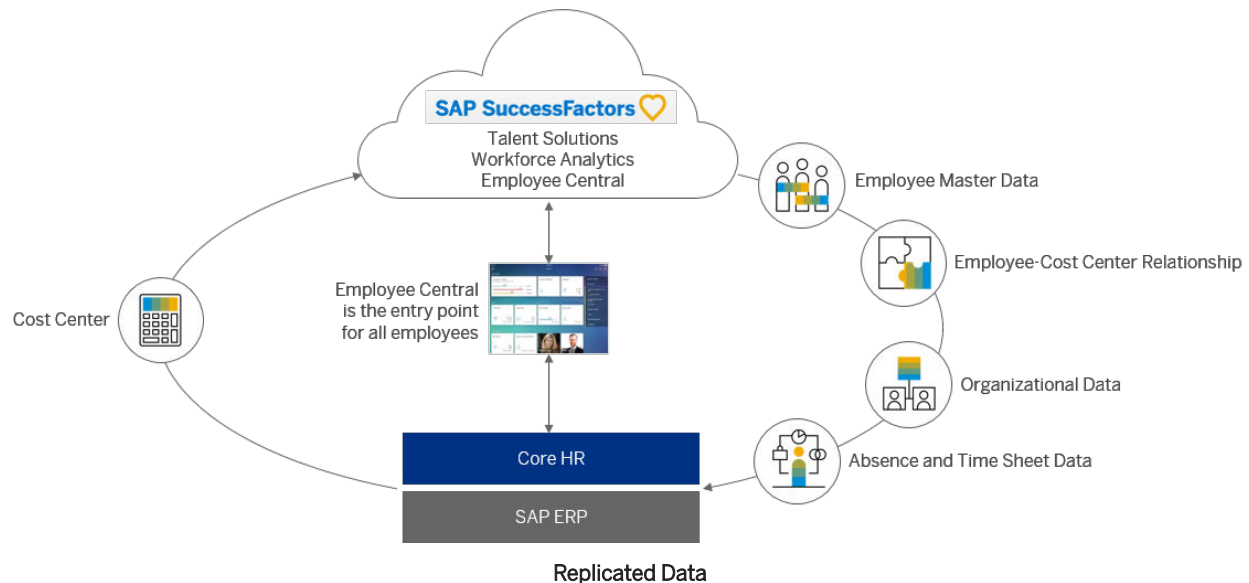
When to Read Which Integration Guide

If this is your integration use case...	... consult this guide
You maintain the employees' master data in Employee Central and run Payroll and Time Management in SAP ERP	<a href="#">Replicating Employee Master Data and Organizational Assignments from Employee Central to SAP ERP HCM</a>
You use Time Off in Employee Central and run Payroll in SAP ERP	<a href="#">Replicating Employee Time Data from Employee Central to SAP ERP HCM Using SAP Cloud Integration as the Middleware</a>
You use Time Sheet in Employee Central and run Payroll in SAP ERP	<a href="#">Replicating Employee Time Data from Employee Central to SAP ERP HCM Using SAP Cloud Integration as the Middleware</a>
You maintain all organizational data in Employee Central, but need this data also in SAP ERP (for example, to use it there in workflows)	Employee organizational assignments: <a href="#">Replicating Employee Master Data and Organizational Assignments from Employee Central to SAP ERP HCM</a>  Organizational objects: <a href="#">Replicating Organizational Objects from Employee Central to SAP ERP HCM</a>
You maintain your cost centers in SAP ERP	Employee cost center assignments: <a href="#">Replicating Employee Master Data and Organizational Assignments from Employee Central to SAP ERP HCM</a>  Cost centers: <a href="#">Replicating Cost Centers from SAP ERP to Employee Central Using SAP Cloud Integration as the Middleware</a>

## 2 Productized Integrations for the Core Hybrid Deployment Option

Find out which productized integrations we provide for the Core Hybrid deployment option.

Here's an overview of the types of data you can replicate between SAP SuccessFactors and SAP ERP:



Productized integrations are available for these data types.

When using the Core Hybrid deployment option, the following data is replicated between Employee Central and SAP ERP:

- From Employee Central to SAP ERP:
  - Employee master data, such as personal, job, compensation, or payment information
  - Employee-cost center assignments
  - Organizational data, such as business units, departments, or job classification (including employee organizational assignments, such as employee-department or employee-job classification assignments)
  - Time off (absences) and time sheet data
- From SAP ERP to Employee Central:
  - Cost centers

[When to Use Which Productized Integration \[page 11\]](#)

Take a look at which integration is useful for which scenario.

## 2.1 When to Use Which Productized Integration

Take a look at which integration is useful for which scenario.

When to Use Which Integration

For this scenario you need to replicate...	... employee master data from Employee Central	... organizational data from Employee Central	... cost centers to Employee Central	... cost center assignments from Employee Central	... Time Off data from Employee Central	... Time Sheet data from Employee Central
You maintain the employees' master data in Employee Central and run Payroll and Time Management in SAP ERP	Yes					
You use Time Off in Employee Central and run Payroll in SAP ERP					Yes	
You use Time Sheet in Employee Central and run Payroll in SAP ERP						Yes
You maintain all organizational data in Employee Central, but need this data also in SAP ERP (for example, to use it there in workflows)		Yes				
You maintain your cost centers in SAP ERP			Yes	Yes		

# 3 Features of the Core Hybrid Deployment Option

Explore the features provided by the Core Hybrid deployment option for integration between Employee Central and SAP ERP.

## [Business Features of the Core Hybrid Deployment Option \[page 12\]](#)

Find out what the Core Hybrid deployment option offers you in terms of business processes.

## [Configuration Features of the Core Hybrid Deployment Option \[page 13\]](#)

Find out what the Core Hybrid deployment option offers you in terms of configuration.

## [Integrated Business Processes in the Core Hybrid Deployment Option \[page 13\]](#)

Look at the business process examples provided for the Core Hybrid deployment option.

## [User Interface Integration for the Core Hybrid Deployment Option \[page 14\]](#)

Find out how you can integrate user interfaces (UIs) between Employee Central and SAP ERP when using the Core Hybrid deployment option.

## 3.1 Business Features of the Core Hybrid Deployment Option

Find out what the Core Hybrid deployment option offers you in terms of business processes.

- The replication converts the data from the Employee Central to the SAP ERP data model (or the other way round).
- Employee master data replication is automated:
  - Data transfer is based on web services.
  - You can also use an event-based push replication, which allows for real-time integration. For example, when a new employee is hired in Employee Central, you can replicate their data immediately, without having to wait for the next regular replication run.
  - The replication is delta enabled.
- The replication prevents unnecessary retroactive Payroll runs in SAP ERP.
- If the data of employees terminated in SAP ERP wasn't migrated to Employee Central, integration notices that the respective employee needs to be rehired when replicating the data to SAP ERP.
- The integration handles global assignments, concurrent employment, and international transfers.
- You can go live with the integration country/region by country/region since data extraction in Employee Central can be done country-based.
- The integration covers country/region specifics. Currently 29 countries/regions are supported, more are on the roadmap.
- Employee master data and organizational data replication are complementary. Organizational assignments are replicated into the employee's *Organizational Assignment* (0001) infotype in SAP ERP.
- Employee master data and employee time data replication are complementary. Time data is replicated into the employee's *Planned Working Time* (0007), *Absences* (2001), and *Employee Remuneration Info* (2010) infotypes in SAP ERP.

- Data migration and integration are aligned. You can use the Infoporter migration tool with preconfigured content to initially load employee and organizational data from SAP ERP into Employee Central and to prepare for subsequent data replication from Employee Central to SAP ERP.

## 3.2 Configuration Features of the Core Hybrid Deployment Option

Find out what the Core Hybrid deployment option offers you in terms of configuration.

- Configuration check tools are available for comparing the configuration in Employee Central and SAP ERP.
- You can find configuration errors early in the implementation phase by simulating employee master data replication from Employee Central to SAP ERP. The simulation provides you with an error log, without updating any infotypes in SAP ERP yet.
- You can monitoring and validate the integration on a business as well as on a technical level, using:
  - The Employee Central Data Replication Monitor
  - Various monitoring tools in the middleware and in SAP ERP
- You can feed data into the same SAP ERP infotype that comes from different source objects in Employee Central. For example, the *Job Information* and *Compensation Information* blocks in Employee Central store data in the *Organizational Assignment* (0001) infotype in SAP ERP.
- The validity periods of SAP ERP infotypes are determined based on the validity periods of the different Employee Central source objects. For example, the validity periods of the *Organizational Assignment* (0001) infotype are determined by complementing the *Job Information* and the *Compensation Information* validity periods, including checks for common values. This approach prevents unnecessary infotype splits.
- The validity periods of SAP ERP infotypes are determined automatically if they're fed with data that comes from non-effective-dated source objects in Employee Central.
- Data replication is on infotype level as well as subtype level. You can still edit infotypes and subtypes in SAP ERP that are contained in the integration.
- The replication is extensible:
  - You can add infotypes that aren't part of the standard replication scope.
  - You can add custom Employee Central objects to the replication scope.

## 3.3 Integrated Business Processes in the Core Hybrid Deployment Option

Look at the business process examples provided for the Core Hybrid deployment option.

The Core Hybrid deployment option provides some productized examples of integrated business processes, such as:

- Hire
- Rehire
- Transfer

- International transfer

#### ❖ Example

John Wills is a London-based marketing specialist. Now, he moves to San Francisco to work there at the same position. You change his data in Employee Central and then replicate the changes to SAP ERP. A *Termination* and a *Hire* action are carried out there to reflect John's international transfer.

- Global assignment
- Concurrent employment

#### i Note

For global assignment and concurrent employment use cases in Employee Central Time Management, refer to [Handling Global Assignments and Concurrent Employment in Time Off](#) in *Implementing Employee Central Time Management*.

- Termination

## 3.4 User Interface Integration for the Core Hybrid Deployment Option

Find out how you can integrate user interfaces (UIs) between Employee Central and SAP ERP when using the Core Hybrid deployment option.

### UI Mashups (or Payroll Mashups)

UI mashups are useful when you use Employee Central as the system of record for employee data and for all global HR business processes and replicate employee master data to SAP ERP because you run Payroll there.

UI mashup means that you embed the *Payroll Information* page (or the *Payroll* block in People Profile) into the SAP SuccessFactors home page. The *Payroll Information* page or *Payroll* block contains screens for accessing the relevant infotypes and the pay statement in SAP ERP.

#### ❖ Example

Using the *Payroll Information* page or *Payroll* block, an HR Admin can enter additional data that is needed for payroll. Employees can check their pay statement.

For more information, see the [Employee Central Payroll](#) or the [Integrating the SAP ERP User Interface with Employee Central](#) implementation guide. Find the most current version of these guides in SAP Help Portal at [http://help.sap.com/hr\\_ecpayroll](http://help.sap.com/hr_ecpayroll) or [http://help.sap.com/hr\\_ecintegration](http://help.sap.com/hr_ecintegration).

## SAP ERP UI Integration

This is useful when you use Employee Central as the system of record for employee data and for all global HR business processes and replicate employee master data to SAP ERP because you run Time Management or local and country/region-specific processes there.

UI integration in this case means that you embed SAP ERP screens for Manager Self-Service and Employee Self-Service scenarios into the Employee Central UI. If you do this, you can trigger actions to be carried out in SAP ERP from the employee's *Take Action* menu in Employee Central or from the SAP SuccessFactors home page. The home page serves as a global UI hub for managers and employees.

### Example

A manager can trigger a process for an employee from Employee Central, which then runs in SAP ERP. Employees can request vacation from Employee Central, although your Time Management processes run in SAP ERP.

For more information, see the [Integrating the SAP ERP User Interface with Employee Central](#) implementation guide. Find the most current version of this guide in SAP Help Portal at [http://help.sap.com/hr\\_ecintegration](http://help.sap.com/hr_ecintegration).

## Home Page Tile Integration

You can manage the tiles that appear on the default SAP SuccessFactors home page. You can control which tiles are visible on the home page, by default, to new users of your system and which tiles can be optionally added or removed by individual users. Tile integration is a general option you can use to integrate third-party UIs. You can also use it for UI integration with SAP ERP.

For more information, see the [Home Page](#) admin guide. Find the most current version of this guide in SAP Help Portal at [https://help.sap.com/hr\\_foundation](https://help.sap.com/hr_foundation).

## Custom Navigation

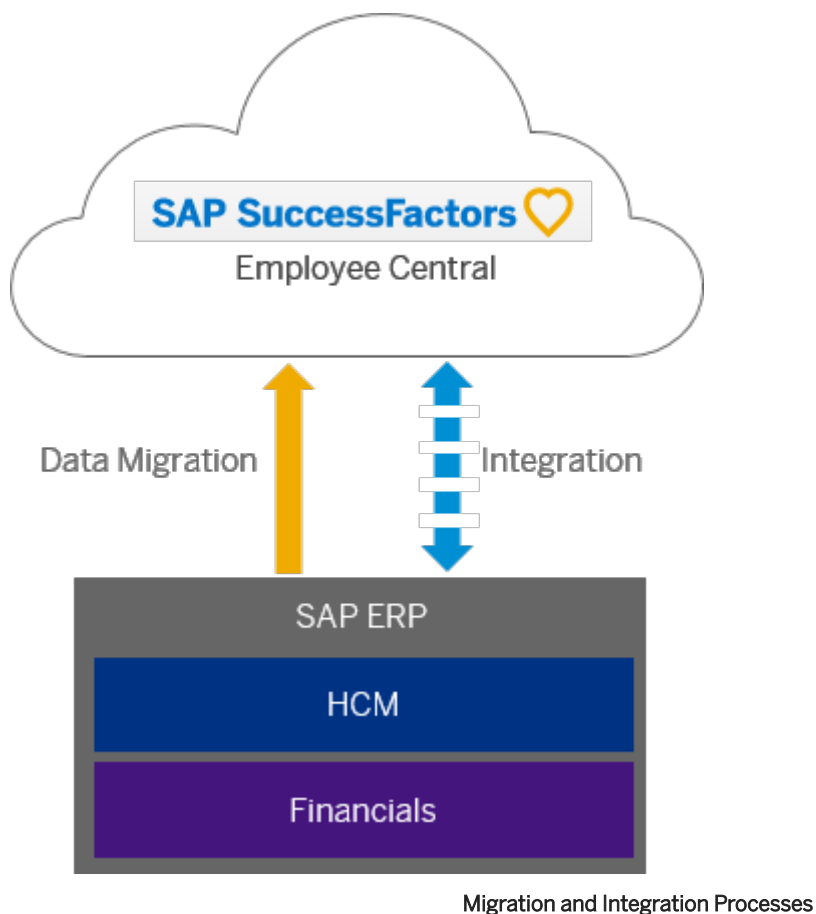
Custom navigation links are hyperlinks that you can add to the SAP SuccessFactors user interface, in various locations, enabling users to navigate from that location to a specified URL. Custom navigation is a general option you can use to integrate third-party UIs. You can also use it for UI integration with SAP ERP.

For more information, see the [Custom Navigation Links](#) admin guide. Find the most current version of this guide in SAP Help Portal at [https://help.sap.com/hr\\_foundation](https://help.sap.com/hr_foundation).

## 4 Migrating Data to Use the Core Hybrid Deployment Option

Take a look at how you can use the Infoporter tool for data migration from SAP ERP to Employee Central to prepare for data replication using the Core Hybrid deployment option.

If you plan to switch your core HR processes from on premise to the cloud, retaining the on-prem SAP ERP system for some specific processes, your first step is to relocate your core HR data from SAP ERP to Employee Central. After that, you integrate the on-prem and the cloud system so that the required data is continuously exchanged during productive use.



The migration and the integration process have a lot of synergies:

- You need to connect the on-prem and the cloud system.
- You need to transfer data from one system to the other.
- While transferring the data, you often also need to transform it.
- You need to map data and make sure it is stored in the right place in the target system.

Many of these tasks, such as mapping fields and transforming data, require detailed knowledge of the software architecture in both systems. For example, you need to determine how effective-dated employee data is to be handled in cases where an HR admin enters information that will only come into effect in the future.



That's why we provide the Business Integration Builder framework. The Business Integration Builder provides default mapping content, but also gives you the flexibility to define your own mappings and transformations. You can use this framework to define the settings required for data migration from SAP ERP to Employee Central, which you can later reuse for continuous data integration between both systems.



For more information, see the [Migrating Data from SAP ERP HCM to Employee Central Using Infoporter](#) guide. Find the most current version of this guide in SAP Help Portal at [http://help.sap.com/hr\\_ecintegration](http://help.sap.com/hr_ecintegration).

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