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# The Road to SAP S/4HANA Transition and deployment options for SAP Business Suite 4 SAP HANA Frank Wagner / Kim M...

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# The Road to SAP S/4HANA

**Transition and deployment options for SAP Business Suite 4 SAP HANA**

**Frank Wagner / Kim Mathaess (SAP SE)**



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# 1 Introduction

## 1.1 SAP Business Suite 4 SAP HANA (SAP S/4HANA) – At A Glance

Over the years, growth in transactional databases and other data sources as well as their associated systems have complicated enterprise applications and infrastructure. This, in turn, has complicated and stymied many organizations' ability to meet the needs of the business, whether that is timely access to analytics, the ability to absorb new business models, or to create new, streamlined business processes. In response, SAP is rewriting and simplifying its applications to take advantage of its in-memory business platform. This new and unique enterprise application is called **SAP Business Suite 4 SAP HANA (SAP S/4HANA)**. It removes previous technological barriers and helps companies manage complexity and run simple across the digital value chain.

What is SAP S/4HANA? A new business suite of applications designed to run simple in a digital and connected world. Built on the advanced in-memory platform, SAP HANA®, and designed on the most modern user experience, SAP Fiori®.

- Complete choice of deployment – cloud and on-premise
- Instant value across lines of business and industries
- The ultimate sophistication: simplicity

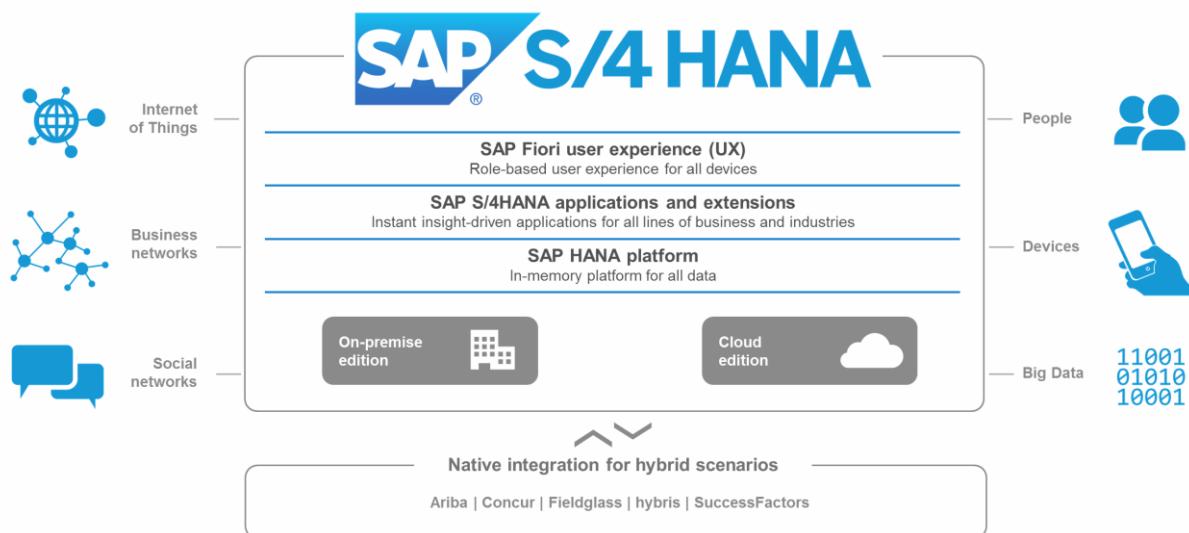


Figure 1: The SAP S/4HANA at a glance

### The Customer has the choice

SAP S/4HANA is available with on-premise, cloud and hybrid deployments to give real choices to customers. Successful customers traditionally define their “core business” or “core processes” where they can differentiate from competitors and realize a competitive advantage. Those areas are often kept in an on-premise environment where customers require the maximum amount of flexibility, have all configuration possibilities and modify SAP business logic according to their needs. Here SAP S/4HANA, on-premise edition would be the go-to solution. In other business areas where differentiation is not essential but a high standardization is required, it would be ideal for customers

to adopt the industry best practices. . The SAP S/4HANA, cloud edition is the ideal choice in this case because it provides best practices right from the start and reduces the TCO.

## 1.2 SAP S/4HANA, on-premise edition and SAP S/4HANA, cloud edition

The business scope for each edition was designed to offer maximum choice to customers in alignment with their business requirements:

- SAP S/4HANA, on-premise edition, already offers a business scope that is similar to the current SAP Business Suite in terms of coverage, functionality, industries, and languages. Within this scope, SAP S/4HANA also includes the transformational simplifications delivered with SAP Simple Finance (SAP Accounting powered by SAP HANA) as well as a planned integration with SuccessFactors Employee Central and Ariba Network. The on-premise edition is intended to offer a yearly innovation cycle through innovation packages. The next innovation package is planned for the end of 2015.
- SAP S/4HANA, cloud edition covers specific business scenarios for the marketing line of business and for the professional services industry as well as the most essential scenarios to run an entire enterprise in the cloud with a digital core, which includes: finance, accounting, controlling, procurement, sales, manufacturing, plant maintenance, project system, and product lifecycle management, plus integration with SuccessFactors Employee Central, Ariba Network, SAP hybris Marketing, Field Glass and SAP JAM. Three offerings are currently available as part of the SAP S/4HANA , cloud edition:
  - SAP S/4HANA, cloud marketing edition – for the marketing line of business
  - SAP S/4HANA, cloud project services edition – for the professional services industry
  - SAP S/4HANA, cloud enterprise edition – for a full ERP scope

The cloud edition is intended to offer a quarterly innovation cycle.

All SAP Business Suite customers have the option to move to SAP S/4HANA. The details are dependent on the SAP Business Suite source system and the SAP S/4HANA target edition. For the move to the SAP S/4HANA, on-premise edition we want to offer a one-step procedure for the majority of the current SAP Business Suite customer. This one-step procedure includes the database migration (for those customers not yet on SAP HANA database) plus the installation of the SAP S/4HANA Core with the appropriate innovation packages. The SAP S/4HANA, cloud edition requires an initial setup using guided configuration utilities. In these cloud editions, where SAP is responsible for the operations including the software change procedures (remember: quarterly innovation cycles!) the amount of flexibility is limited compared to the On-Premise edition. For example, the customer modifications on SAP objects are not allowed in these editions. Accordingly, we should consider the transition into the cloud editions more as a new implementation for our customers. On a long-term roadmap into the cloud, a customer might choose a path where the initial move is to the SAP S/4HANA, on-premise edition and then eventually migrates to one of the cloud editions. For those customers, the intermediate step to the SAP S/4HANA, on-premise edition provides the opportunity to consume the values of SAP S/4HANA (FIORI, data footprint reduction, application simplification) but gives more time to adapt (for example) his current custom code to the cloud requirements. There might be customers coming from an older SAP Business Suite release and moving immediately to one of the S/HANA cloud editions without the intermediate step to upgrade their SAP Business Suite system to the newest enhancement package and the database migration to SAP HANA.

### 1.2.1 Comparing the Editions – At a glance

The differences between the two SAP S/4HANA editions are displayed in the following figure at a glance.

		SAP S/4HANA On-Premise	SAP S/4HANA Cloud Edition
Licensing Model	Traditional Licensing		Subscription Licensing
Infrastructure & Maintenance model	The customer is in control of deployment and maintenance with dedicated own IT staff		SAP provides the system and is responsible for the system maintenance.
Speed of Innovation	Customer has full control over speed of innovation, planned downtimes, changes within the system, changes of the system		Cloud customers participate automatically on quarterly innovation upgrades
Implementation Approach	Highly individual requirements regarding business processes and customization. T		Predefined best-practice configuration with limited specialization
Functional Scope	Full ERP Scope (incl. SAP Simple Finance & Logistics) Integrates with SuccessFactors Employee Central., Fieldglass, hybris for marketing, SAP JAM and Ariba network		Key scenarios, Embedded ERP scenarios (Integrates with SuccessFactors Employee Central., Fieldglass, hybris for marketing, SAP JAM and Ariba network)
Custom Code	Full traditional ABAP extensibility up to core modification (which is not recommended for TCO reasons)		In-app extensibility with limited ABAP; SAP HANA Cloud Platform (HCP) as extension platform for larger extensions

Figure 2: The SAP S/4HANA – Comparing the Editions

#### Licensing Model

For the SAP S/4HANA on-premise edition the traditional SAP pricing model is in place. SAP Business Suite customers need to purchase the SAP S/4HANA foundation-promotion license to run the new SAP S/4HANA code line. For the SAP S/4HANA cloud edition the pricing model is subscription-based.

#### Infrastructure & Maintenance model

In the SAP S/4HANA, on-premise edition the customer is in full control of deployment and maintenance with dedicated own IT staff. In the SAP S/4HANA, cloud edition SAP provides the system and is responsible for the system maintenance. This includes the execution of patches and release upgrades.

#### Speed of Innovation

In the SAP S/4HANA, on-premise edition the customer responsible for the deployment and maintenance does have full control over speed of innovation, planned downtimes, changes within the system and changes of the system. In the SAP S/4HANA, cloud edition the customers participate automatically on quarterly innovation upgrades based on the service level agreements.

#### Implementation Approach

The customer (usually collaborates with consulting partners) can implement highly individual requirements regarding business processes and customization. This requires detailed technical know-how. Customers coming from SAP Business Suite can move to SAP S/4HANA, on-premise edition basically in a one-step-technical procedure using SAP Update Manager with Data Migration Option (DMO).

In the SAP S/4HANA, cloud edition the customer is following best-practices with standardized fine-tuning requirements to participate faster on future innovative business processes. The customer of

the cloud edition can implement the solution with key user business know-how. During this process, limited technical know-how is required. Customers coming from SAP Business Suite can move to SAP S/4HANA, cloud edition by implementing the SAP S/4HANA cloud system using the guided configuration functionalities plus (if required) data migration functionality (technically based on SAP Landscape Transformation [SAP SLT]).

## Scope

In the SAP S/4HANA, on-premise edition the customer can use the full ERP Scope from SAP Business Suite. (This includes the application innovation from SAP Simple Finance and SAP Simple Logistics). The SAP S/4HANA, on-premise edition can integrate with other SAP cloud solutions like SuccessFactors Employee Central, Fieldglass, SAP hybris marketing, SAP JAM and Ariba network. The SAP S/4HANA, cloud edition the covers specific business scenarios for the marketing line of business and for the professional services industry. As well as the most essential scenarios to run an entire enterprise in the cloud with a digital core that includes: finance, accounting, controlling, procurement, sales, manufacturing, plant maintenance, project system, and product lifecycle management. This comprehensive offering also provides native integration between SAP S/4HANA and other cloud solutions from SAP, including those from SuccessFactors in human resources, Ariba in procurement as well as integration with SAP hybris Marketing.

## Custom Code

The customer would select the SAP S/4HANA, on-premise edition if maximal flexibility in business critical processes are required, and go far beyond standardization. However, adding business logic is not enough, because modification of SAP objects is required. In the SAP S/4HANA, cloud edition the customer limits their flexibility by using the cloud extensibility functionalities which transform always patched and upgraded operating systems and makes it easy for customers to introduce new innovations.

### 1.2.2 Availability of SAP S/4HANA

There are quarterly innovation cycles for the SAP S/4HANA, cloud edition. The innovations for the SAP S/4HANA, on-premise edition are delivered in a yearly cycle. See the following figure displaying the next planned deliveries.

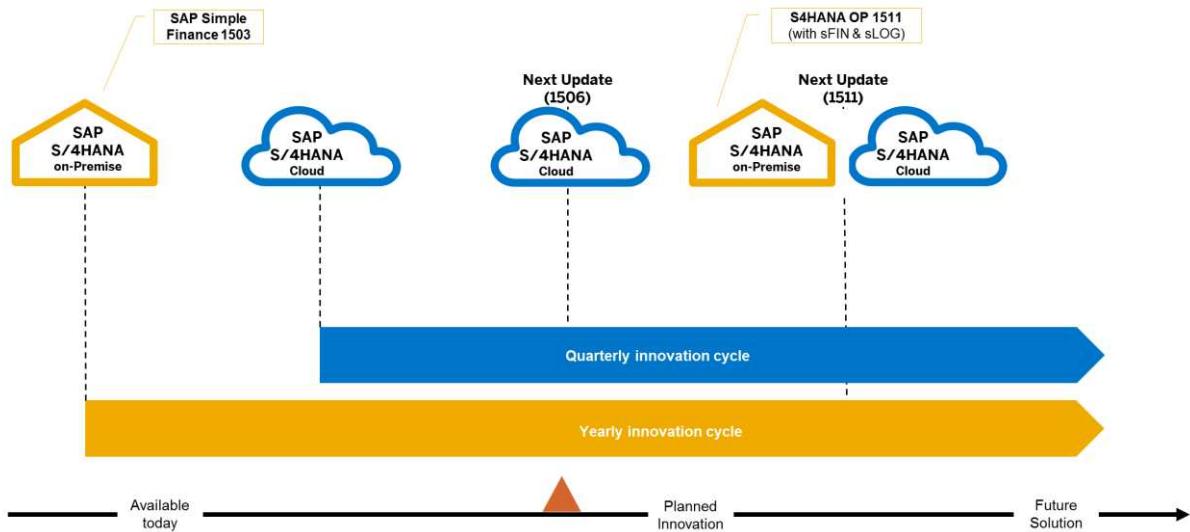


Figure 3: The SAP S/4HANA – availability

### 1.3 The road to S/4HANA

The Roadmap to get from where you are now to where you need to go, in order to maximize benefits will vary according to different business and IT drivers. For example, you may already be on Suite on HANA, a Hybrid Scenario, a new SAP customer, or you may have a mature SAP landscape. You may want to roll out SAP S/4HANA as quickly as possible, try it in a specific geography or business unit, or implement Central Finance as a Shared Service Center. However, you may want to implement SAP S/4HANA in Premise or in the cloud. There are many options, and SAP can help you identify the business benefits and plan your roadmap.

SAP Simple Finance marked the first step in our SAP S/4HANA roadmap for customers. Today (as of August 2015) a customer can join the SAP S/4HANA family by installing the SAP Simple Finance Add-On. SAP Simple Finance replaces the classic ERP Financials. With the Q4 / 2015 delivery SAP S/4HANA, on-premise edition, additional application innovation in logistics area will be delivered. The application innovation delivered with Q4 / 2015 cannot be considered as an “add-on” (or “exchange innovation add-on”) like we call it in combination with SAP Simple Finance. Instead, we speak of the installation of the **SAP S/4HANA Core**. The SAP S/4 HANA Core consists of several “**innovation packages**”. With the Q4 / 2015 delivery the simplified financials and simplified logistics innovation packages are included. More innovation packages are planned to be delivered with future SAP S/4HANA Core releases.

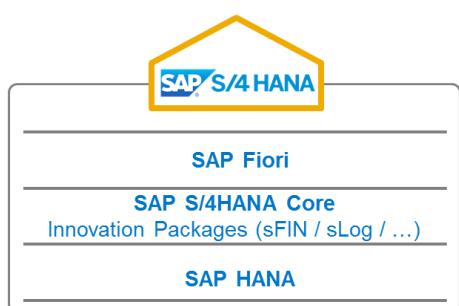


Figure 4: SAP S/4HANA, on-premise edition (Q4 / 2015 delivery) - technical stack (basically)

There are three different implementation scenarios for how a customer can move to SAP S/4HANA

- Scenario 1 - System Conversion : Existing SAP Business Suite Customer who wants to move to SAP S/4HANA
- Scenario 2 – Landscape Transformation: Existing SAP Business Suite Customer who want to optimize their system landscape and move to SAP S/4HANA
- Scenario 3 – New Implementation: New SAP customer who want to move from legacy systems to SAP

### 1.3.1 Scenario 1 - System Conversion: SAP Business Suite Customer who wants to move to SAP S/4HANA

This scenario is focused on existing SAP Business Suite customers that want to change their current system into a SAP S/4HANA, on-premise 1511 system. This includes technically the following steps (main steps – not the complete technical piece list):

- Update to SAP NetWeaver Application Server ABAP 7.5
- Migrating the database to SAP HANA (in case, the SAP Business Suite system is not yet on SAP HANA).
- Installation of SAP S/4HANA, on-premise edition
- Installation of SAP Fiori for SAP S/4HANA, on-premise edition
- Migration of data from the old data structures to the new simplified data structures

The scenario is technically based on Software Update Manager (SUM) with Database Migration Option (DMO) in case the customer is not yet on SAP HANA Database.

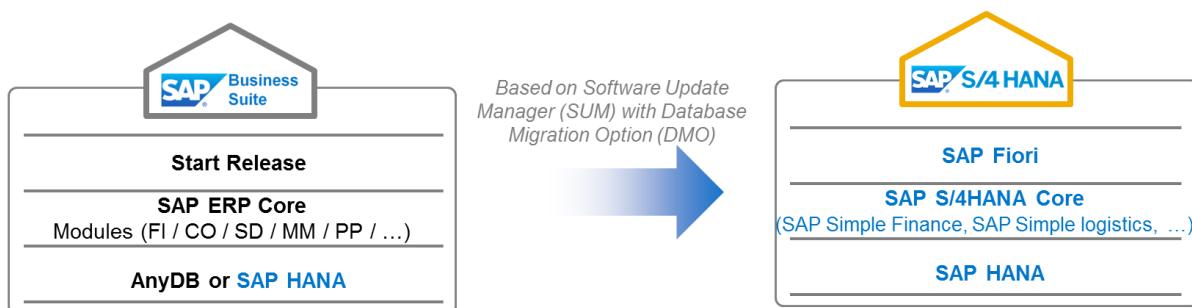


Figure 5: SAP S/4HANA, on-premise edition – System Conversion

Basically, the customer can move to SAP S/4HANA, on-premise edition (Q4 delivery) in a **one-step procedure**.

- Supported start releases for a one-step procedure: ERP 6 and Suite on HANA, ERP 6.0, EhP 0-7 (EhP 8 once available), Suite on HANA (Including SAP Simple Finance 1.0 and 2.0)
- Customers on older Business Suite releases can move to SAP S/4HANA in a two-step approach (for example with Unicode migration and business partner conversion as a first step and the move to SAP S/4HANA, on-premise edition as second step).

**SAP Best Practices** available for this scenario are an accelerated project methodology via “step-by-step” HTML guide, project tools and enhancements to use the SUM with DMO to its fullest potential, and a guided process to migrate your database leveraging new project accelerators.

### 1.3.2 Scenario 2 – Landscape Transformation: Existing SAP Business Suite Customer who want to optimize their system landscape and move to SAP S/4HANA

This scenario is focused on existing SAP Business Suite customers that want to change their current system or system landscape into a SAP S/4HANA, on-premise 1511 system (or system landscape).

This scenario covers more complex migration scenarios. This includes the following technical steps (main steps – not the complete technical piece list):

- Possibly a new installation of a SAP S/4HANA, on-premise edition 1511 system
- Possibly converting a system to SAP S/4HANA, on-premise edition 1511
- Additional migration steps that are based on SAP Landscape Transformation combined with SAP Landscape Optimization services

Usually a migration project is more than a technical task to move to the newest software architecture. Usually the migration project has to deal with requirements such as: the merge of multiple systems into one global suite system OR the migration of selective parts of a system (e.g. line of business, organizational units). Based on SAP Landscape Transformation technology (SAP SLT) these migration requirements can be addressed.

The following figure is displaying the system consolidation use case.

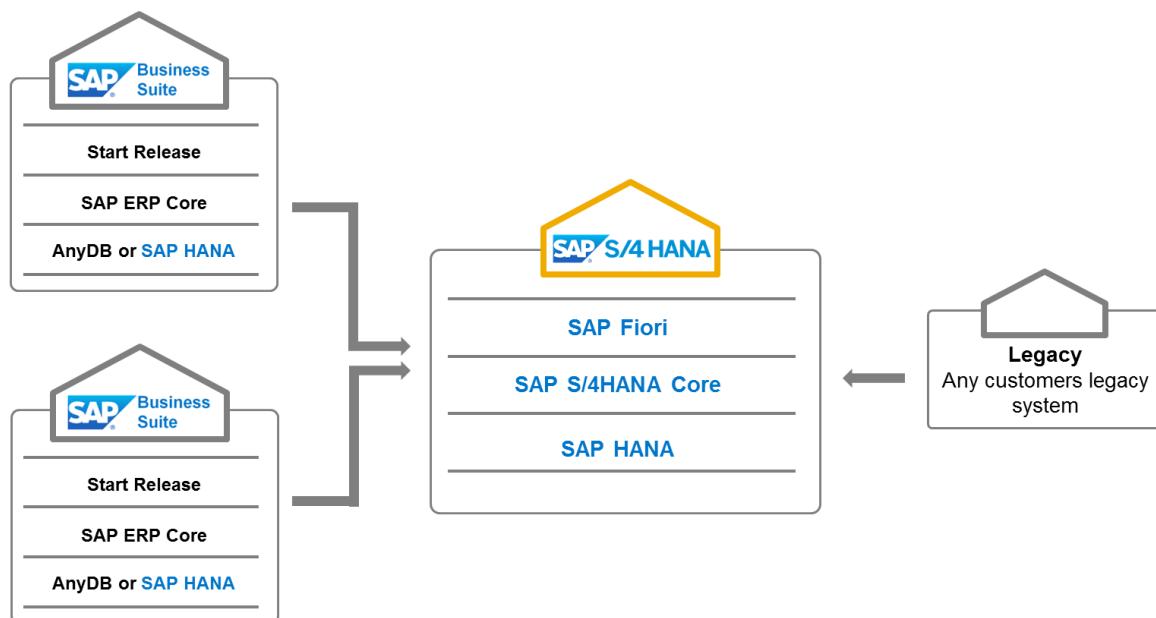


Figure 6: SAP S/4HANA, on-premise edition – merge of multiple systems into one global suite system

The following figure is displaying the company-code-wise move to SAP S/4HANA.

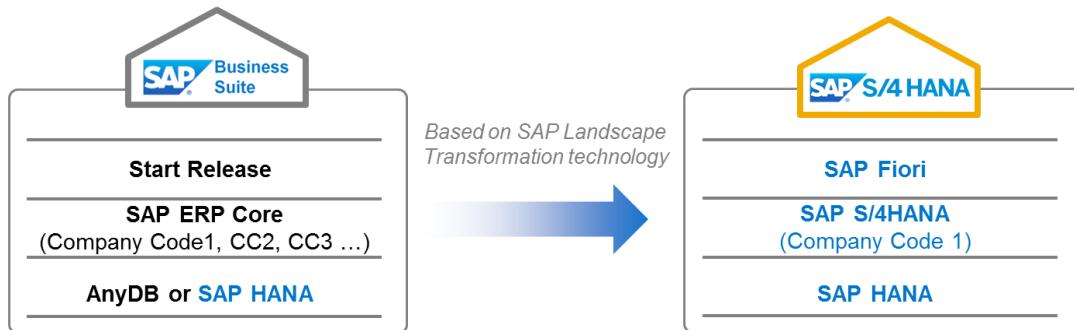


Figure 7: SAP S/4HANA, on-premise edition – migration of selected parts

Use cases like data volume reduction (data clean up and archiving) during migration into SAP S/4HANA would also fit in this category.

**SAP Best Practices** available for this scenario are predefined extraction, transformation, and loading capabilities (in form of coded assets created in SAP LT). They provide the analysis and extraction of data from SAP source systems, validation of the extracted data, transformation to meet S/4 HANA requirements, and the loading into the target infrastructure via pre-defined interfaces.

### 1.3.3 Scenario 3 – New Implementation: New SAP customer who wants to move from legacy systems to SAP S/4HANA

Focused on net-new customers (coming from any legacy system) or SAP Business Suite customers that start for different reasons with a new installation. This includes the following technical installation steps (main steps – not the complete technical piece list):

- Installation SAP NetWeaver Application Server ABAP 7.5 based on SAP HANA
- Installation of SAP S/4HANA, on-premise edition
- Installation SAP Fiori for SAP S/4HANA, on-premise edition

In this scenario, the SAP S/4HANA system is implemented, and master and transactional data are migrated from the legacy system. Depending on the SAP S/4HANA edition and detailed customer requirements, SAP Landscape Transformation (SAP SLT) or SAP Data Services technology is used for the required data migration.

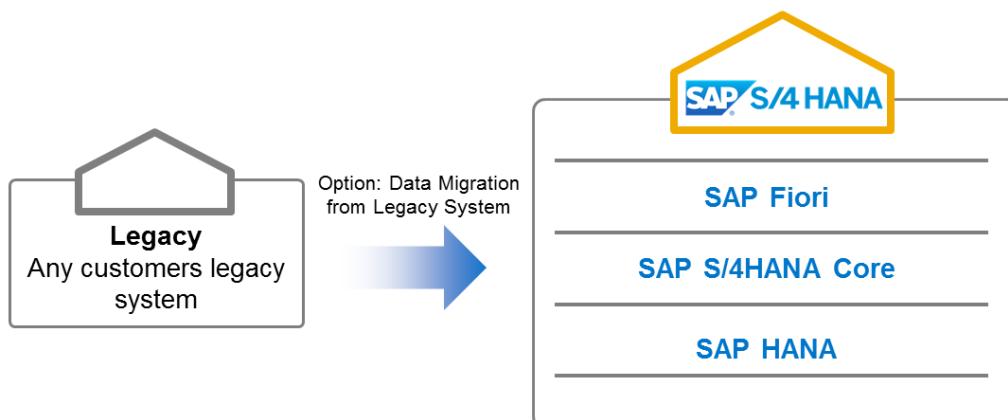


Figure 8: SAP S/4HANA, on-premise edition – New Implementation

**SAP Best Practices** available for this scenario are a predefined, and guided configuration is provided to setup the future target system much faster than traditional implementation processes. The SAP Best Practices for data migration match the pre-configuration and automate most of the conversions needed. For SAP source systems SAP LT is used as in Scenario 2. Non-SAP source systems content for SAP Data Services is available to provide extraction of data from virtually any source system. Additionally, SAP Data Services will cleanse and transform data to meet the target SAP data format.

## 2 The Transition to SAP S/4HANA, on-premise edition

In the following chapters you can find the technical prerequisites and the path to move from SAP Business Suite to SAP S/4HANA, on-premise edition.

In the chapter [2.1 SAP Simple Finance, on-premise edition](#) you can find the technical details related to SAP Simple Finance. In [2.2 SAP S/4HANA, on-premise edition 1511](#) you can find the technical details related to SAP S/4HANA, on-premise edition 1511. In chapter [2.3 New SAP Customer](#) you can find the details regarding the move of new SAP customers to SAP S/4HANA.

For existing SAP Business Suite Customers, the move to SAP S/4HANA is from a technology point of view, which is based on Software Update Manager (SUM) with Database Migration Option (DMO). For new SAP customers or customers combining the move to SAP S/4HANA with use cases described in chapter 1.3.2. Scenario 2, (Landscape Transformation: Existing SAP Business Suite Customers who want to optimize their system landscape and move to SAP S/4HANA) the technology used is based on SAP Landscape Transformation (SAP SLT) and/or SAP Data Services. The understanding of these technologies is the basis for the transition to SAP S/4HANA.

Find below related links to the technical information.

Document	Link
<b>SAP S/4HANA, on-premise edition – transition related technology</b>	
Software Update Manager (SUM) – SAP Help	<a href="#">Link</a>
Software Update Manager (SUM) – SCN Blog	<a href="#">Link</a>
Database Migration Option (DMO) – SCN Blog	<a href="#">Link</a>
Introduction to Database Migration Option (DMO) of SUM	<a href="#">Video</a>
Introduction to Database Migration Option (DMO) of SUM – UI demo	<a href="#">Video</a>
<b>Migration Technology &amp; Services</b>	
SAP Landscape Transformation – SAP Help	<a href="#">Link</a>
SAP Landscape Transformation – SCN Community	<a href="#">Link</a>
SAP Landscape Transformation – Functions in Detail	<a href="#">Link</a>
SAP Landscape Transformation – Online Course LT100	<a href="#">Link</a>
SAP Data Services - Help Portal	<a href="#">Link</a>
SAP Data Services - SCN Wiki	<a href="#">Link</a>

### 2.1 SAP Simple Finance, on-premise edition

As of June 2015, a customer can join the SAP S/4HANA family by installing SAP Simple Finance. In different documents you can find the term “*exchange innovation add-on*,” because SAP Simple Finance replaces the classic ERP Financials with application innovation in the financial area.

More information about SAP Simple Finance, on-premise edition can be found here:

- Line of Business - Finance: <http://go.sap.com/solution/lob/finance.html>

- SAP Help: <http://help.sap.com/sfin200>

SAP Notes related to SAP Simple Finance:

- For Information on product name see SAP note: [217186](#)
- For the latest updates refer to SAP note [2117481](#) (Release Information Note)
- For release restrictions see SAP note [2127080](#)
- Compatibility of enterprise extensions, industry solutions, and add-ons can be found in SAP Note [2119188](#).

### 2.1.1 Technical Prerequisites and Software Products

Technically the SAP Simple Finance, on-premise edition 1503 is based on:

- SAP enhancement package 7 for SAP ERP 6.0
- SAP NetWeaver 7.40
- SAP HANA database

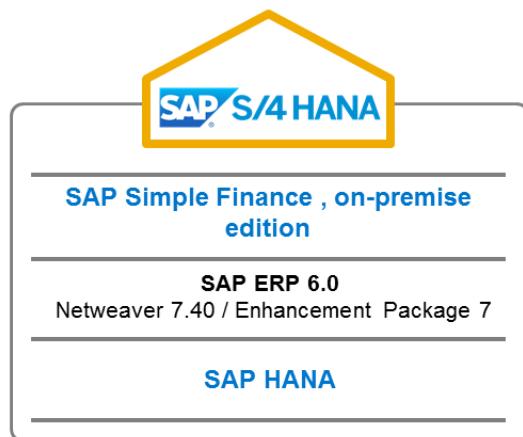


Figure 9: SAP Simple Finance, on-premise edition 1503

With the installation of SAP Simple Finance on-premise edition, several software units are installed.

- SAP Simple Finance, on-premise edition
- SAP HANA Live for SAP Simple Finance, on-premise edition
- SAP Fiori for SAP Simple Finance, on-premise edition
- SAP Smart Business for SAP Simple Finance, on-premise edition

More detailed information can be found in the [Administrators Guide](#) for the SAP Simple Finance, on-premise edition 1503.

### 2.1.2 The transition path to SAP Simple Finance, on-premise edition

In the following constellations a **one-step** transition path from SAP Business Suite to SAP Simple Finance, on-premise edition 1503 is supported:

- One-Step Procedure for customers on anyDB, ABAP AS 7.0x, SAP ERP6.0 EHPx
- One-Step Procedure for customers on SAP HANA, ABAP AS 7.40, SAP ERP6.0 EHP7
- One-Step Procedure for customers on SAP Simple Finance 1.0

These constellations are displayed in the following figures:

### SAP Simple Finance one-step procedure - Constellation 1:

- SAP HANA database migration
- Update to SAP EHP7 for SAP ERP 6.0 / SAP NetWeaver 7.4
- Installation of the SAP Simple Finance , on-premise edition 1503

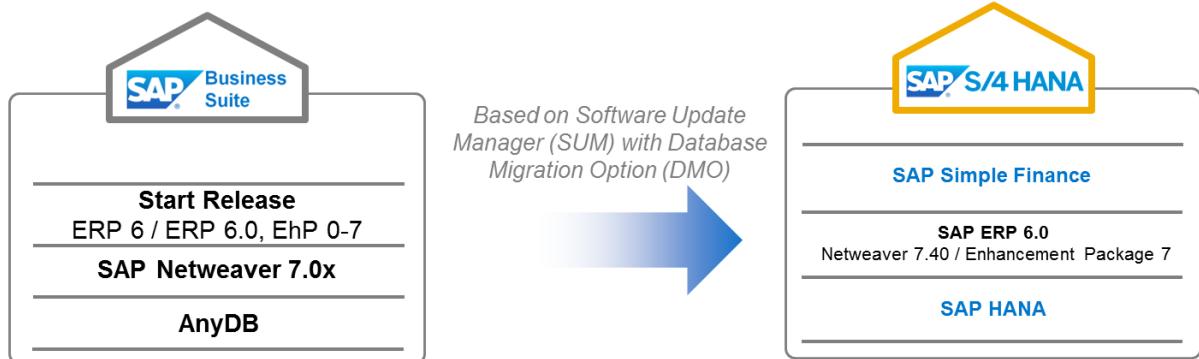


Figure 10: Installation of SAP Simple Finance, on-premise edition 1503 - One-Step Procedure for customers on anyDB, ABAP AS 7.0x, SAP ERP6.0 EHPx

### SAP Simple Finance one-step procedure - Constellation 2:

- Update to SAP EHP7 for SAP ERP 6.0 / SAP NetWeaver 7.4
- Installation of the SAP Simple Finance , on-premise edition 1503

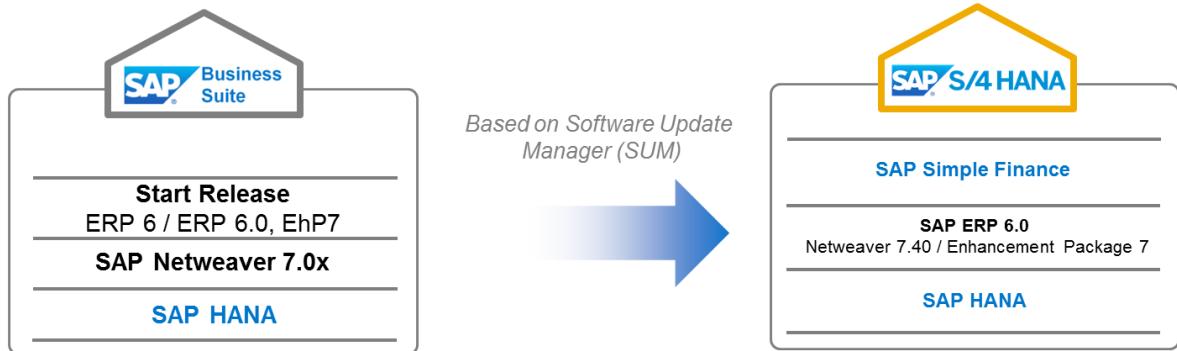


Figure 11: Installation of SAP Simple Finance, on-premise edition 1503 - One-Step Procedure for customers on SAP HANA, ABAP AS 7.40, SAP ERP6.0 EHP7

### SAP Simple Finance one-step procedure - Constellation 3:

- Installation of the SAP Simple Finance , on-premise edition 1503



Figure 12: Installation of SAP Simple Finance, on-premise edition 1503 - One-Step Procedure for customers on SAP Simple Finance add-on 1.0

Additional Remarks:

- It is planned to deliver further innovations and appropriate migrated paths for SAP Simple Finance in 2016.

## 2.2 SAP S/4HANA, on-premise edition 1511

With the SAP S/4HANA, on-premise edition 1511 (Q4 / 2015 delivery) it is planned to enhance the functional scope with application innovation and simplification in the logistics area. Now, with the application innovation in financials and logistics area we can discuss the **SAP S/4HANA Core**. More application innovations are planned to enhance the SAP S/4HANA Core in the future. In addition to the application simplification in financials and logistics area, the SAP S/4 HANA Core consists of the SAP Fiori user experience (UX), and innovations for the digital economy based on SAP HANA.

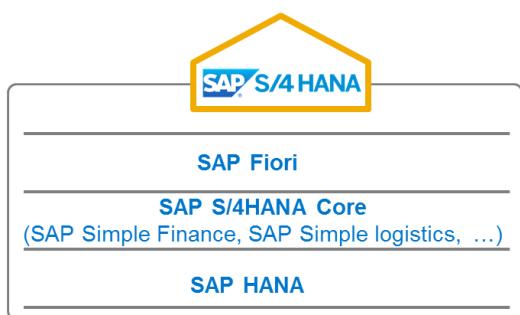


Figure 13: SAP S/4HANA, on-premise edition 1511 - technical stack (basically)

To ensure a smooth transition to SAP S/4HANA, on-premise edition traditional features will stay available. Besides application specific functionality, only the SAP GUI based user interface technology should be listed as the still available function after the move to SAP S/4HANA.

### 2.2.1 Technical Prerequisites and Software Products

Technically, the SAP S/4HANA, on-premise edition 1511 is based on:

- SAP S/4HANA core components (including simplified financials and simplified logistics)
- SAP NetWeaver 7.50
- SAP HANA database

## 2.2.2 The transition path to SAP S/4HANA, on-premise edition 1511

In the following constellations, a **one-step** transition path from SAP Business Suite to SAP S/4HANA, on-premise edition is supported:

- One-Step Procedure for customers on anyDB, ABAP AS 7.0x, SAP ERP6.0 EHPx
- One-Step Procedure for customers on SAP HANA, ABAP AS 7.0x, SAP ERP6.0 EHPx
- One-Step Procedure for customers on SAP HANA, ABAP AS 7.40, SAP ERP6.0 EHP7, SAP Simple Finance add-on 1.0 / SAP Simple Finance, on-premise edition 1503

These constellations are displayed in the following figures:

### SAP S/4HANA, on-premise edition 1511 one-step procedure - Constellation 1:

- SAP HANA database migration
- Installation of SAP S/4HANA Core 1511 (based on SAP Netweaver 7.5)



Figure 14: Installation of SAP S/4HANA, on-premise edition 1511 - One-Step Procedure for customers on anyDB, SAP ERPx

### SAP S/4HANA, on-premise edition 1511 one-step procedure - Constellation 2:

- Installation of SAP S/4HANA Core 1511 (based on SAP Netweaver 7.5)

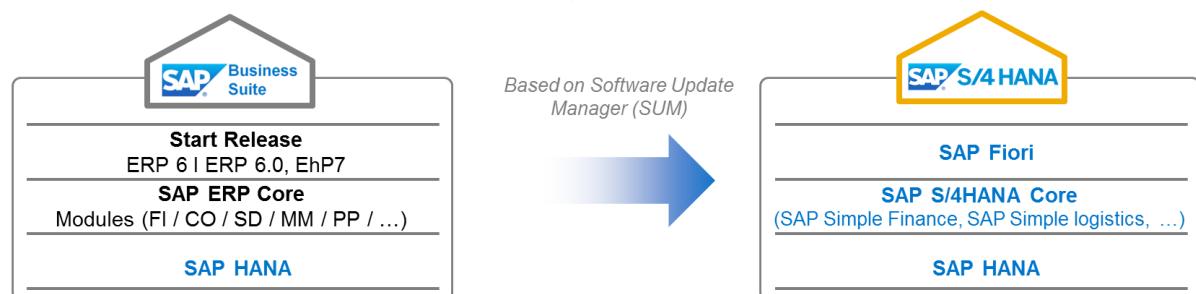
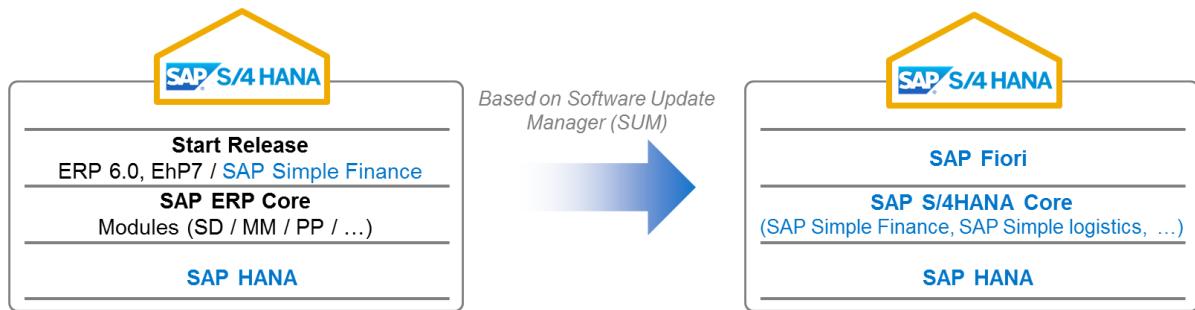


Figure 15: Installation of SAP S/4HANA, on-premise edition 1511 - One-Step Procedure for customers on SAP HANA, SAP ERP6.0 EHP7

### SAP S/4HANA, on-premise edition 1511 one-step procedure - Constellation 3:

- Installation of SAP S/4HANA Core 1511 (based on SAP Netweaver 7.5)



**Figure 16: Installation of SAP S/4HANA, on-premise edition 1511 - One-Step Procedure for customers on SAP Simple Finance**

Additional Remarks:

- An explicit upgrade to Enhancement Package 7 is not required for the move to SAP S/4HANA, on-premise edition 1511. See figure 14.
- Customers using older SAP Business Suite Releases (for example still on Non-Unicode) can move to SAP S/4HANA, on-premise edition 1511 in a **two-step** transition approach.
- The installation of the SAP Fiori UI software components are a separate installation step and typically are installed on a separate, central gateway server. Due to simplification reasons the figures above do not show this aspect.

## 2.3 New SAP Customer

New SAP S/4HANA, on-premise edition customers will be supported in their implementation project with pre-configuration based on SAP Rapid Deployment Solutions and SAP Rapid Data Migration with SAP Data Services. Additionally, there will be content packages for the implementation and integration with SAP S/4HANA and other SAP cloud solutions, such as SAP SuccessFactors Employee Central. The following figure describes the data migration based on SAP Data Services technology at a glance<sup>1</sup>:

<sup>1</sup> More information in SAP Help: [Link](#)

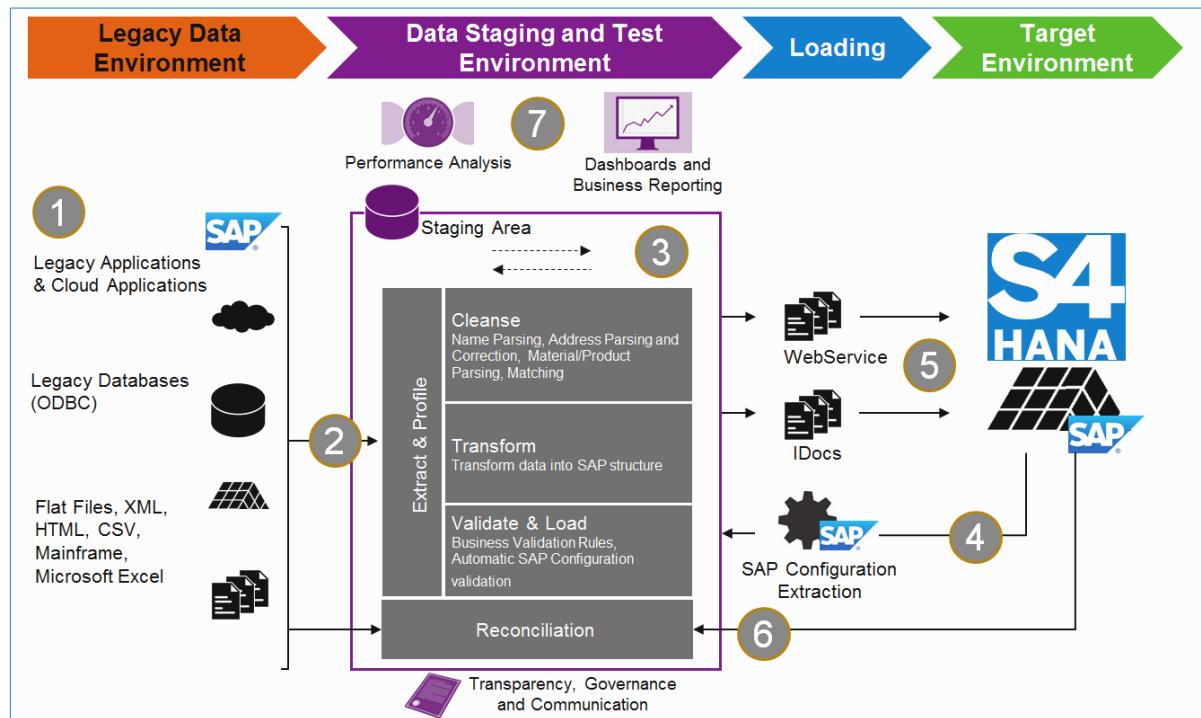


Figure 17: SAP S/4HANA, on-premise edition: Data Migration based on SAP Data Services – At a Glance

### Legacy data environment (1)

The legacy data environment refers to the source systems for the migration. It can be any third-party source system that is supported by SAP Data Services connectivity (almost everything as SAP Data Services supports ODBC protocol). SAP systems on a lower release that cannot be upgraded can be a legacy system as well. The Rapid Data Migration package comes with pre-built content for SAP S/4HANA.

### Extract and profile (2)

Data is extracted from the source and placed in a staging area in SAP Data Services. At this point, you can conduct technical profiling with SAP Data Services. Additionally, you can start profiling very early on the source systems using SAP Information Steward. The Data Services environment is used as a staging area that extracts and profiles the data. The profiling can include looking at patterns in postal codes. For example, what percentage of postal codes has 5 digits? It could also be how many material numbers follow a specific pattern. For example, you might be interested in how many unique IDs there are in a certain table. The extraction and profiling of data is an important first step in a data migration project. The quality of the source data is assessed and the overall risk of data migration is mitigated to ensure overall success of the data migration project.

### Cleanse, transform, and validate (3)

This includes updating the data so that it meets specific patterns, mapping and transforming the data according to rules, and validating data against the SAP S/4HANA business context. This can involve combining two fields into one, splitting fields, updating the data in a field to match certain rules (for example, telephone number formats), and validating data against required fields and lookup values from the SAP S/4HANA context and configuration. Also, duplicate data records can be eliminated with this step.

#### **SAP configuration extraction (4)**

Once the data is extracted, it is important to know how the data needs to be prepared for SAP. The solution reads business context and configuration settings in SAP S/4HANA to help map the data. As part of an SAP S/4HANA implementation, the system is configured with many values such as cost centers, company codes and country values. This step enables knowledge of the SAP business context, in order to transform and then validate the data in Data Services against the SAP configuration and customization settings. Mapping of the source data normally requires mapping fields that comply with the SAP configuration.

#### **Load (5)**

Once the data is transformed and validated, it is then loaded into the SAP S/4HANA system. This is normally done via IDocs and Web Services, but can also be done with files & BAPIs.

#### **Reconciliation (6)**

Reconciliation looks at what was actually loaded versus what was expected to be loaded. This ensures all data was loaded and is ready for use.

#### **Dashboards and business reporting (7)**

Throughout the process, dashboards are available for the people involved to stay informed about the status of the migration. Additionally, the migration project often sets data quality expectations and governance around data management. The entire process of assessing the data, validating data according to business rules and SAP context lays the ground work for ongoing data governance. For example, if customer records were checked to ensure every customer had at least two contact persons associated with it, then this process can continue to ensure all new customer records have two contact persons.

### 3 The Transition to SAP S/4HANA, cloud edition

SAP S/4HANA, cloud edition already covers specific business scenarios for the marketing line of business and for the professional services industry as well as the most essential scenarios to run an entire enterprise in the cloud with a digital core including: finance, accounting, controlling, procurement, sales, manufacturing, plant maintenance, project system, and Product lifecycle management, plus integration with SuccessFactors Employee Central, Ariba Network, SAP hybris Marketing, Field Glass and SAP JAM.

#### SAP S/4HANA, cloud edition – Three offerings

Three offerings are currently available as part of the SAP S/4HANA, cloud edition<sup>2</sup>:

- SAP S/4HANA, cloud marketing edition – for the marketing line of business
- SAP S/4HANA, cloud project services edition – for the professional services industry
- SAP S/4HANA, cloud enterprise edition – for a full ERP scope

For more details regarding the scope of the different SAP S/4HANA cloud offerings see the following information: S/4HANA SCN - [LINK](#)

#### SAP S/4HANA, cloud system - implementation

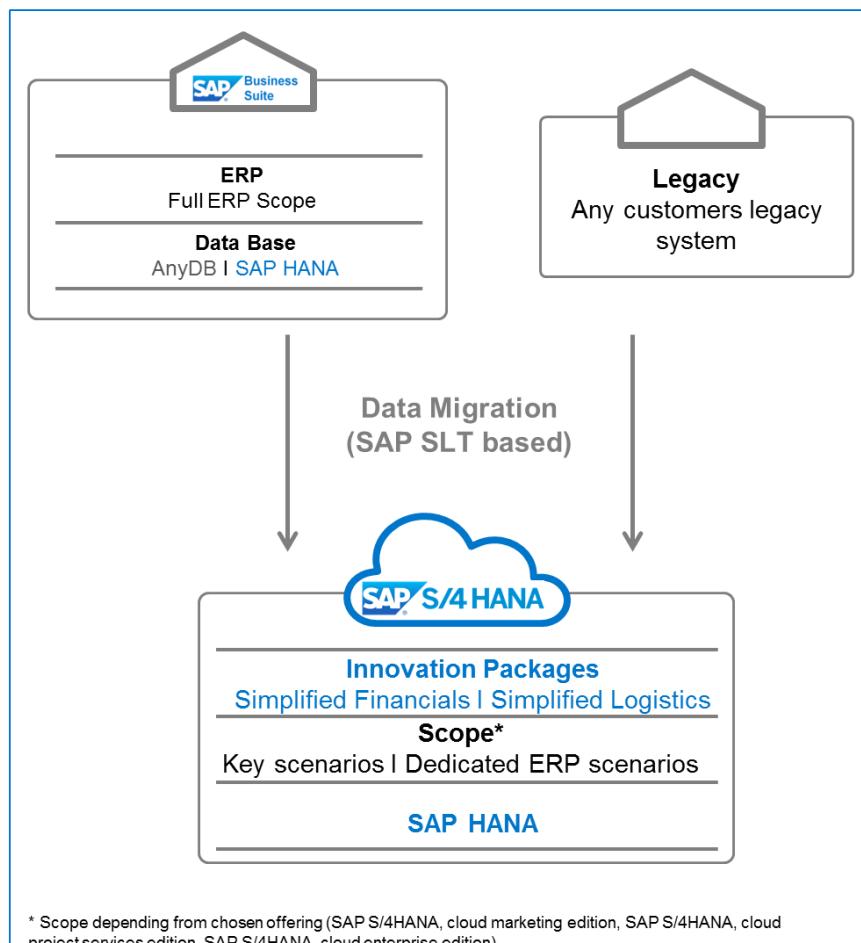
The initial step to move SAP S/4HANA, cloud edition is the implementation of customers cloud system. Based on the built-in functionalities of the guided configuration the customer (optionally supported by consulting and implementation partners) implements his business scenarios and business processes. The required master and transactional data can be migrated from SAP Business Suite (or any legacy system).

#### SAP S/4HANA, cloud system – data migration

Technically the migration to SAP S/4HANA, cloud edition is based on **SAP Landscape Transformation** (SLT) and Data Migration Server (DMIS) as data migration tools. Data is migrated from a customer's source (SAP Business Suite System or any legacy system) to a new SAP S/4 HANA Cloud target system. From an implementation point of view, the data migration is integrated into the SAP S/4HANA Implementation cockpit (End to End Implementation experience).

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<sup>2</sup> A free 14-day cloud edition trial system is available to help you experience the value of simplicity across key business scenarios: project manager scenario, cash manager scenario, general ledger accountant scenario, accounts receivable accountant scenario, accounts payable accountant scenario. You can access the trial on: [www.sap.com/s4hana-trial](http://www.sap.com/s4hana-trial)



\* Scope depending from chosen offering (SAP S/4HANA, cloud marketing edition, SAP S/4HANA, cloud project services edition, SAP S/4HANA, cloud enterprise edition)

Figure 18: Move to SAP S/4HANA, cloud edition – at a glance

Find below related links to the technical information.

Document	Link
SAP Landscape Transformation – SAP Help	<a href="#">Link</a>
SAP Landscape Transformation – SCN Community	<a href="#">Link</a>
SAP Landscape Transformation – Functions in Detail	<a href="#">Link</a>
SAP Landscape Transformation – Online Course LT100	<a href="#">Link</a>
SAP Data Services - Help Portal	<a href="#">Link</a>
SAP Data Services - SCN Wiki	<a href="#">Link</a>

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