The Road to SAP S/4 HANA
Jan 2019
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SAP S/4HANA allows you to digitize beyond the core and embrace the digital economy. We’ve reimagined the business suite to help you reimagine your business.

SAP S/4HANA allows you to realize an end-to-end digital business – combining the opportunities of the digital economy with the process simplification and capabilities necessary to achieve digital transformation.

- Enable instant insight, contextual information, and personalized experience
- Unlock the power of data with scalable, real time, predictive and simulation capabilities
- Drill down the finest level of granularity with amazing responsiveness and accuracy
SAP HANA is the center of our simplification strategy.

SAP HANA combines integration, database, and application services into one unified and open platform. This new architecture enables converged OLAP and OLTP data processing within a single in-memory column-based data store with atomicity, consistency, isolation, durability (ACID) compliance. This guarantees that database transactions are processed reliably, while eliminating data redundancy and latency. This unique architecture enables IT to remove redundancies and use advanced compression techniques to reduce data footprint and TCO.

By providing advanced capabilities, such as predictive text analytics, spatial processing, and data virtualization on the same architecture, IT further simplifies application development and processing across Big Data sources and structures. This makes SAP HANA the most suitable platform for building and deploying next-generation, real-time transactional applications and analytics.

This is why SAP, independent software vendors (ISVs), and startups are all building next-generation applications on the SAP HANA platform.
Data Driven Intelligence
Systems need to convert available data into actionable insights, solution and decision proposals and should be able to predict the future (predictive analysis). These systems bring light to existing “dark data” in the company and put the data into the context of the end users business process – where are exceptions and errors and where are actions or decisions needed to bring business processes back into optimum. Thus end users are capable to consume data from a wider horizon beyond and within the enterprise frontiers – data from the Internet of Things, from data streams, 3rd party data, from networks or the Internet itself; decisions are taken beyond the enterprise boundaries.
Simplification
Within each business process companies must be flexible to adjust each of these processes and the underlying data – *customer demand is changing, short-term cancellations of orders, etc.* – those vendors delivering the best service and the best system reaction times wins. Therefore the ultimate competitive advantage is to provide this flexibility on process and data level – no aggregates allowed ("we have already an aggregate compiled that cannot be changed quickly"), only the document level counts and this can be changed at any times.

On data side we simplify the underlying data structure to the utmost extend until a highly performant and optimized system is left. This new type of architecture has been piloted in Simple Finance, adopted for Simple Logistics and we know that it works and performs for HANA – this is the target architecture for all other simplified components. In the past indices and total tables were created to avoid that systems were always calculating. This happened to ensure overall system performance, but at the price of complexity and inflexibility. Both have now been eliminated from the system. A typical booking in FIN touched 15 tables – now its 4, working on document level.
Reducing redundant data simplifies the IT architecture.

Here’s another look at the simplification that happens when redundant data are no longer needed. In this one example, we see all the objects that are needed to post an invoice, before HANA and after HANA. This illustrates an important point: SAP Simple Finance is not simply our finance system moved from a traditional database to in-memory database. Simplification like this cannot be accomplished merely by a database migration. Simple Finance was re-built purposefully to take advantage of what HANA can do, making HANA essential to SAP Simple Finance.

Other database vendors might be able to cobble together several products to merely mimic the in-memory characteristics of HANA. But this does not achieve the simplification that IT can get with Simple Finance. The extra speed produced from an in-memory database is interesting but ultimately not of significant value unless it is applied to simplification.

Note: this example is not intended to be a comprehensive schematic or list every object used in posting invoices. It is, though, an real example of the impact removing redundant data will have on all finance processes.
ERP Financials on classic database
- Two journals in separate database tables causing data redundancy and reconciliation efforts
- Totals and indices caused low flexibility

Simple Finance on SAP HANA
- Unifying both worlds in logical document
- Aims towards an overall view on the line items within financials, connecting the different financial line items

Customer benefits

- Financial and Management Accounting is harmonized in line with international reporting requirements
- New concept also helps to achieve the full capabilities of account-based CO-PA
Simplified solution architecture will benefit your IT organization immediately.

The IT landscape, processes, and maintenance routines are all positively impacted by a simplified solution architecture. The numbers shown here are from real-world experience of SAP Benchmarking Services, a division of SAP’s services and support organization.

**Simplify the IT landscape**
Cut memory and storage resources dramatically and improve reliability

71% **Reduce maintenance**
Simplify maintenance by greatly reducing ETL and re-indexing batch jobs

**Infinite scale**
The fact having an engine at hand that allows to process and analyze massive amounts of any data leads to a situation that only our imaginations limits the boundaries to use the system. All data – inside and outside the company, structured and unstructured – can be processed and analyzed. Therefore systems need the performance and scale to operate on a complete new level of data quality and quantity – it must be ensured that any redundant data is removed from the system, any data that does not directly contribute and benefit the business process or the quality of the information provided.

**Business agility**
Systems need to be able to support massively increased business agility and need to instantly react on user requests. It must be avoided to have processes that hinder system performance and system agility – this is the end of batch processing; batch has started with punch cards, punch cards have died, UIs which were the interfaces of function modules have died and the batch is now dying in these days.
Imagine, one day we will have…
Bi-directionally embedded Analytics in a transaction screen, and …
Process Optimizations
Soft financial close

Use case

Description: A traditional measurement of the financial organization is the speed at which a company closes its books. In benchmarking studies, SAP Value Engineering found that the top quartile–performing companies achieve the annual financial close in 25% fewer days than their peers, resulting in a 1% lower General Ledger and closing costs.

Industry relevance: Cross-industry

Unique value of SAP S/4HANA

» Drive one common view of financial data to help ensure enterprise-wide consistency to minimize reconciliation
» Enable real-time processes for instant insight to make timely, relevant decisions
» Use prediction, simulation, and analysis to evaluate financial implications of strategic business choices

Top capabilities

» Universal journal for both financial and controlling data
» On-the-fly aggregation of transactional tables
» Central finance to consolidate many back ends

Solutions

» SAP S/4HANA, on-premise edition
» SAP S/4HANA, cloud edition
» SAP Simple Finance solution

Business innovations

» Real-time oversight of close progress
» Real-time insight into financial results
» Continuous intramonth processes

Quantifiable value

» 400 hours cut from period-end close
» 90% faster real-time analytics
» 2.5x faster cost postings

*SAP software implementation

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The complexity found in decision making, process execution, and IT architecture has a high cost. The illustration on this slide shows specific examples of complexity in finance, and what results.

Decision making: Finance has to wait for experts (usually in IT) to gather and prepare data to analyze. By the time this is done, the problems finance is trying to discover and diagnose have often become unmanageable.

Process execution: Today’s batch-oriented processes, like period-end close, not only suffer from the inherent latency of a batch operation, they also rely on manual reconciliation between finance and controlling systems. The result is that there is no time left in a period to check for errors or even simulate what would happen under different conditions, such as an acquisition, divestiture, or reorganization.

IT architecture: Because there has been little structural change in finance systems, IT must spend time to create interfaces and reporting layers to help bend the business into the predefined structure demanded by the system. As a result, businesses cannot really optimize the way they work. If they do reorganize, this creates even more of a burden on one-off interfaces or reporting structures to handle the differences.

All this complexity is not trivial. It eats into more than 10% of profits.
However transforming their finance function is very challenging for CFO’s. There is a lot of recent independent research that shows while many CFO’s are fully aware of the benefits of transformation and providing better and faster strategic insight to the rest of the enterprise, - without leveraging the proper technology innovations that ambition becomes very difficult to achieve.

This slide highlights very recent independent research and cfo survey’s from outlets like CFO.com and Harvard Business Review that while CFO’s understand the benefits of:

- Better and easier to understand data
- Predictive analysis
- Providing real-time insights and strategic value to all lines of business

they lack the tools necessary to deliver more strategic value to the business because of inefficiencies in their systems. A significant number of customers simply don’t leverage what is already possible today because they are not aware of the possibilities that state-of-the-art Finance solutions are offer.
## Taking Finance to the next level at SAP

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICO Reconciliation</td>
<td><strong>70%</strong></td>
<td>Less reconciliation time</td>
</tr>
<tr>
<td>Receivables management</td>
<td><strong>10%</strong></td>
<td>DSO Reduction</td>
</tr>
<tr>
<td>Database Footprint</td>
<td><strong>1,8 TB</strong></td>
<td>SAPs ERP-Database reduce from once 7.1 TB</td>
</tr>
<tr>
<td>Financial Close</td>
<td><strong>22%</strong></td>
<td>Further reduction in processing time (automation)</td>
</tr>
<tr>
<td>Strategic Support</td>
<td><strong>Soft Close</strong></td>
<td>intra-Month Information when &amp; where needed</td>
</tr>
<tr>
<td>Financial Close</td>
<td><strong>30%</strong></td>
<td>Less processing time</td>
</tr>
<tr>
<td>Risk &amp; Compliance</td>
<td><strong>10%</strong></td>
<td>Less fraud cases by real time screening on anomalies</td>
</tr>
<tr>
<td>Organizational change</td>
<td><strong>80%</strong></td>
<td>Less cost center re-org time</td>
</tr>
<tr>
<td>Strategic Support</td>
<td><strong>Margin Optimization</strong></td>
<td>Better decision support, prediction &amp; simulations</td>
</tr>
<tr>
<td>Treasury</td>
<td><strong>3%</strong></td>
<td>Cash optimization</td>
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</tbody>
</table>
SAP S/4HANA Simple Logistics – Key Innovations

Material Requirements Planning
- Fast MRP run, and new working model for MRP controllers based on decision support.

Inventory Management
- Simplified data model resulting in increased throughput, flexible analytics at the most granular level.

Material Valuation
- Elimination of booking increased throughput for standard price utilizing Material Ledger, that way customers can use multi-currencies, valuation methods per different accounting laws like GAAP.

Available To Promise & Backorder processing
- New ATP Algorithm based on HANA embedded in mass component check in production.

Capacity Planning
- PP/DS Side by Side with S/4

Order Management & Billing
- Enable monitoring of end to end order to cash process & take actions for any exceptions, information on the exceptions to resolve the issues, lower TCO due to data model simplification, support for the most recent versions of business features such as FSCM Credit Management, OTS Foreign Trade, S/4N Revenue Accounting, new analytical capabilities.

Procurement
- Increased efficiency in the Procure-to-Pay processes, new Analytical Apps & Spend KPIs, Ariba Network Integration for PO Order and IV.

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Beautification
**AP Fiori User Experience**

**AP Fiori Concept**
- Role-based
  - De-composition into task-based experience
- Responsive
  - All sizes, devices, versions, channels
- Simple
  - 1-1-3 (1 user, 1 use case, 3 screens)
- Coherent
  - Apps that speak the same language
- Instant Value
  - Low barrier to adoption
- New Experience
  - Simulation and Decisions support

**AP Fiori Design**

https://experience.sap.com/fiori-guidelines/

**AP UI Technologies**
- User Interface
- Business Logic
- SAPUI5

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Fiori is a technology that offers a state of the art web UI, based on HTML5 and UI5 (SAP technology) and provides capabilities to personalize the screen – thereby Fiori enables technologically everything that we need to provide the right screens for the new end users. Fiori design principles make it possible to be able to adjust the screens to every front end device and adopt it automatically to future new design principles and thus keep the screens always state of the art. Fiori is also a development and design principle for SAP – the screens are role-based – and thus our developers know everything of the end user and can design and adopt the screen to the needs of the end user of this particular role: putting the user into the center of the business process. With this principle we ensure that the software is not targeting a ‘neutral individual’ that enters all information into one screen but that the software is aware of the business context, the tasks and the exceptional situation the user is working in and thus provides all the relevant information that the user needs to perform his tasks (“the system is working for me; I am not working for the system”).
This architectural principle resulted in a new product that is ultra-lean, ultra-performant and ultra-flexible; Fiori-enabled for web access, role-based to enable the system of me, OLTP and OLAP merge to enable embedded analytics and to focus on problem and decision solving tasks. This new decisive mode of the software is also embedded in the new MRP Cockpit.

Left side is depicted the classical transaction based screen of the MRP Run, an interface to the underlying function modules taking input of the data and parameters – the user drives the system. Right side is the new MRP Cockpit actively taking all information and data into account, providing on the fly simulation and additional decision support directly provided by the system.
SAP Fiori – Key Capabilities of a responsive design

**Key capabilities**
Consolidation of activities, Intelligent navigation patterns, Intuitive usability

- Contact data
- Credit data: UHM, BP
- Personalized post-it notes
- Trends & analytics at a glance
- Full customer contact history
- Context-dependent actions
- Customize layout variants

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Almost two thousand customers have already chosen the Business Suite powered by SAP HANA. A very big Thank you to SAP’s partners. 1.100 SoH customers are SAP’s partners customers; >50% off all SoH customers. 65% of all active SoH projects are led by SAP’s partners. This is our joint success.

S4HANA is the next generation Business Suite and a new product. It is the logical successor (not legal successor) for the SAP Business Suite on HANA post Jan 29th and the closing of FKOM 2015. S/4HANA is not only fully build on HANA; it’s fully build for HANA.

S4 indicates the next generation suite, following R/2 R/3 ... via making a step forward in alphabetically and numerical order - this analogy can be used, though it should not be stressed as we do not really talk about R/3 anymore today.

From now on, S4HANA is the default business suite offering for all net new name customers. As we stand to our commitment to protect the investment of our installed base customers, we will also continue to deliver innovation on our business suite offering for any DB. However, transformational applications require a transformational platform and this is why SAP S4HANA is the logical next step for all of our installed base customers to join us in this exciting journey of innovation in a non-disruptive way.

1st step for IB customers: Suite on any DB -> Upgrade to ECC6 EHP7 and DB migration = Suite on HANA

2nd step for IB customers: Suite on HANA -> Implementation of the „Exchange innovation“ = SAP S4HANA

SAP S4HANA is the next generation core ERP, delivered any way our customers want it - on cloud or on-premise.
Higher Education Specific
## Roadmap SAP S/4HANA On Premise (OP)
for Public Sector Management (PSM)

<table>
<thead>
<tr>
<th>Year</th>
<th>Version</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>Business Suite on HANA (SoH)</td>
<td>Compatibility of PSM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Featurings:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Accelerators for Funds Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Accelerators for Grantee Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Accelerators for US Federal Accounting</td>
</tr>
<tr>
<td>2015 (Q1)</td>
<td>S/4 HANA OP for Simple Finance 2.0</td>
<td>Enablement of PSM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Featurings:</td>
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<tr>
<td></td>
<td></td>
<td>- Compatibility of Finance add-on with</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Funds Management</td>
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<tr>
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<td></td>
<td>- US Federal Accounting</td>
</tr>
<tr>
<td>2015 (Q4)</td>
<td>S/4 HANA 1511 OP Enterprise Management</td>
<td></td>
</tr>
<tr>
<td>2016 (Q4)</td>
<td>S/4 HANA OP Enterprise Management</td>
<td>User experience in PSM (planned)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Featurings:</td>
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<tr>
<td></td>
<td></td>
<td>- Redefined User Experience for Budget related roles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Analytical Insight Capabilities via Virtual HANA Views</td>
</tr>
<tr>
<td>2017</td>
<td>S/4 HANA OP Enterprise Management</td>
<td>Simplification (planned)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Featurings:</td>
</tr>
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<td></td>
<td>- Simplifications for Funds and Grantee Management</td>
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<tr>
<td></td>
<td></td>
<td>- Simplifications for US Federal Accounting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Further Analytical Content and Capabilities</td>
</tr>
</tbody>
</table>
S/4 HANA Release 1511 for Public Sector Management
On Premise (OP)

- **Release-to-Customer Date:** November 10, 2015

- **As of 1511, all Public Sector components:**
  - are enabled to use with S/4 (limitations exist – see note 2228940),
  - but do not yet have a simplified architecture

- **Scope of 1511 release:**
  - Public Sector Dimensions available in Universal Ledger (replacing former PSM specific NewGL tables)
  - Enablement of Long Material Number
  - Enablement of PSM specific fields on Business Partner
  - Enablement of Cash Ledger, Cash Flow Reporting and Cash Control
  - DB throughput and footprint reduction due to elimination of aggregate tables in Budget Control System
    (no total updates)
  - Removal or temporary disablement of multiple components including Former Budgeting, Expenditure
    Certification, Multi-level Budget structure, Average Daily Balance, etc.
S/4 HANA release 1610 for Public Sector Management
On Premise (OP)

- Planned Scope: Draft – Statement of Direction
  - Removal of pending limitations
  - FIORI User Experience for Budget Responsible
  - Smart Business Apps for My Budget and My Budget Alert
  - Earmarked Funds Approval App in ‘My Inbox’
  - Object Pages for all Public Sector Dimensions – 360 degree view on data posted to those dimensions
  - Object Pages for ‘Budget Entry Display’ and ‘Earmarked Funds Display’
  - User Experience for Budget Specialist
  - Virtual Data Model to support Analytical Insights (reporting) for all PSM components
# Roadmap SAP S/4HANA On Premise (OP) for Student Lifecycle Management

<table>
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</table>
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- Compatibility of Finance add-on with:  
  - Funds Management  
  - Grants Management  
  - US Federal Accounting |
| 2016 Q1 | S/4 HANA OP for Simple Finance 2.0 |
| 2016 Q2 | S/4 HANA 1511 OP Enterprise Management  
  - Enabling of SLCM UX Experience:  
    - Simplified User Experience for Student, Professor, Faculty and Advisor roles  
    - CDS virtual data models |
| 2017 | S/4 HANA OP Enterprise Management  
  - Enabling of SLCM:  
    - Optimization of SLCM Data Model  
    - Simplification of Grants Management |
Migration
74% of customer migration projects took less than 6 months.
Integration & Migration Strategy
The Road To SAP S/4HANA For Customers

- "UPGRADE-LIKE":
  - Suite 7 → SAP S/4HANA On-Premise Edition
  - Stepwise move to S/4HANA using simplification packages

- UPGRADE / DB MIGRATION:
  - Suite 7 → Suite on HANA
  - 1-time DB Migration
  - (ideally) review of custom code
  - 1-step upgrade to S/4HANA (EHP7)

- MIGRATION:
  - any product → SAP S/4HANA Cloud Edition
    - Automated Migration of Business Data and Master Data
    - Pre-defined migration packages with various industry and LOB solutions that bundle software, services (including pre-engineered RDS packages for integration and configuration) and content

Source: S4_QEP_HowCustomersGetThere_external.ppt
But like most businesses, the key to success is based not only on delivering on the promise, but do so quickly and efficiently.

To facilitate and ensure success along the S/4HANA implementation path, we have defined a « Journey to Run Simple » that you can enter at different stages depending on your organization’s level of maturity.

• A Value Identification Workshop will help to discover beneficial business scenarios enabled by SAP S/4HANA and will provide a point of view for potential areas of innovation for your company.
• If you have identified the business potential, the planning services will help you to establish an S/4HANA specific strategy, a roadmap and high-level architecture. The planning phase will cover business as well as technical aspects.
• For a “New Implementation” the baseline package will leverage standardized best practices implementation methodology for on-boarding to S/4HANA. The Data Migration solution supports loading existing data into the new environment.
• Existing customers will leverage the Rapid Database Migration of SAP Business Suite to SAP HANA to help adopt S/4HANA.

Now you are ready to consume the innovations available, such as Value Realization through Simple Finance and SAP Fiori.
SAP S/4HANA cookbook: Guiding you through your implementation

To answer your implementation questions, we plan to release a structured and regularly updated guide (the SAP S/4HANA cookbook) within the SAP S/4HANA SCN community that links to relevant information around the implementation of SAP S/4HANA.

Find more information here: [http://scn.sap.com/docs/DIG-68072](http://scn.sap.com/docs/DIG-68072)

The purpose of the blog entry is:

» To bring more clarity in the discussions what are the different pre-requisite for SAP Simple Finance, on-premise edition 1503 and SAP S/4HANA, on-premise edition 1511.

» Currently we get questions like:
  • Is it required to go to EHP7 first to go to SAP S/4HANA?
  • Is sLOG included in EHP8?
  • Is RDS is only way to deploy exchange innovation code on top of business suite on Hana?

See question from SCN ([http://scn.sap.com/thread/3704287](http://scn.sap.com/thread/3704287))
Official road map content available on Service Marketplace
Product Road Maps > Cross Product > S4HANA

https://websmp108.sap-ag.de/~form/handler?APP=00200682800000002672&EVENT=DISP&SCENARIO=01100035870000000122&HIER_KEY=501100035870000019623&HIER_KEY=601100035870000248628&HIER_KEY=601100035870000250174&
Thank You!