ERP on HANA Suite Migration

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Agenda

- Drivers for Suite on HANA
- How / Where to Start
- Preparing and Migrating your Systems
- Migration Lessons Learned
Enterprise information architecture is lagging
Real-time service levels can not be provided

- disk-centric computing is causing major bottleneck
- dictating complex development paradigms
- imposing in-efficient deployment architectures
- forcing ineffective user experience
Bringing transactions and Analytics together
Low latency computing driven by in-memory technology
Move data intense operations to the in-memory computing

Traditional applications execute many data intense operations in the application layer

SAP HANA-based applications delegate data intense operations to the in-memory computing

Perform Business Processes in Real-time, instead of Batch processing
- Move the workload from the App Server to the DB server
- Reduce the I/O bottlenecks and the bandwidth usage

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Execute current processes faster and more often driving the business faster

**DO WHAT YOU DO BETTER**

**Speed Core Business Processes**

Ensure all reports are always in sync with your latest ECC transactions and perform to user expectations

**FASTER, REAL-TIME ANALYTICS**

Enhance Analytics

Utilize immediate, real-time results to drive new, innovative business processes

**ENABLE NEW BUSINESS PROCESSES**

Business Process Innovation

**Drive Business Results**

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Examples of Business Process Enhancements in Finance:

- **Report Speed Improvement**: New reporting experience with near second response time (e.g., Treasury position list and Line Item Browser for General Ledger, Customer, Vendor), up to 1350x faster.
- **Intercompany Reconciliation**: Intercompany reconciliation runs real-time and enables a single source of truth in the finance system by reducing TCO by up to 200x.
- **Profitability Analysis**: Enables running Profitability Analysis as an online report for different views and cost hierarchies, giving decision critical insight for business planning and reviews, up to 124x faster.
- **Document Journal Report**: Stable responsiveness of the application by various combinations of attribute selection, up to 978x faster.
- **Incoming Payment Clearing**: Advanced search for open items (e.g., invoices) to be cleared by incoming payments, all FI customers can save processing time of one of the most labor-intensive processes in FI-AR, 71x faster.
- **Acc. Receivables Dashboard**: New app that enables receivables manager to assess and respond quickly and appropriately to changes in customer payment behavior, no latency KPIs.

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Drivers for Suite on HANA
How / Where to Start
Preparing and Migrating your Systems
Migration Lessons Learned
Understand Suite on HANA business drivers and realization strategy.
Utilize the Business Scenario Recommendation Report to Map Benefits to Existing Processes

- Report availability is included in customer maintenance
- Report can be accessed at [http://www.suiteonhana.com](http://www.suiteonhana.com)
- Requires your transaction history (captured via t-code st0n3) be uploaded to the website
- Provides recommendations on optimizations / value tailored to your specific transaction usage
# Business Scenario Report Example

SAP HANA accelerates key business processes with in-memory technology. The table below shows the transactions and reports in your processes that could be accelerated and impact your business value.

<table>
<thead>
<tr>
<th>Solution Area</th>
<th>Business Scenario</th>
<th>Relevance</th>
<th>Your improved transactions</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting and Financial Close</td>
<td>Real-Time Financial Performance Management</td>
<td>70%</td>
<td>14</td>
<td>Get the details</td>
</tr>
<tr>
<td>Accounting and Financial Close</td>
<td>Fast Financial Close</td>
<td>40%</td>
<td>2</td>
<td>Get the details</td>
</tr>
<tr>
<td>Treasury and Financial Risk Management</td>
<td>Central Treasury Exposure Management</td>
<td>30%</td>
<td>2</td>
<td>Get the details</td>
</tr>
<tr>
<td>Accounting and Financial Close</td>
<td>SAP Financial And Controlling Accelerator</td>
<td>30%</td>
<td>2</td>
<td>Get the details</td>
</tr>
<tr>
<td>Accounting and Financial Close</td>
<td>SAP CO-PA Accelerator</td>
<td>30%</td>
<td>2</td>
<td>Get the details</td>
</tr>
<tr>
<td>Receivables and Payables Management</td>
<td>Efficient Payables Management</td>
<td>30%</td>
<td>1</td>
<td>Get the details</td>
</tr>
<tr>
<td>Enterprise Risk and Compliance</td>
<td>Access Control Role Analytics</td>
<td>Recommended**</td>
<td>Get the details</td>
<td></td>
</tr>
<tr>
<td>Enterprise Risk and Compliance</td>
<td>Automated Cross-System Testing</td>
<td>Recommended**</td>
<td>Get the details</td>
<td></td>
</tr>
</tbody>
</table>
Business Scenario Report Example <Cont>

Finance – Real-Time Financial Performance Management

Overview

What is the value?

How to implement?

Relevance 70%

Business Context
Managing performance from a financial perspective is becoming more crucial every day. On-time results for all audit- and analysis-related inquiries and an ability to react to risks and opportunities exemplify the need for a transparent and efficient process to deliver financial information on time and accurately. You need to manage operations and related performance successfully in today's volatile business conditions.

Challenges
You need to plan, re-plan, monitor, and control the business model, business operations, the products and services offered, the markets served, and the technologies brought to your customers in volatile market environments. At the same time, you must increase efficiency, reduce operating costs, and improve stakeholder satisfaction at the same time.

Related to: Cost Management, Profitability and Cost Analysis & Cost Planning

Improve service-level performance

Reduce month-end closing time

Minimize operating costs

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Business scenario recommendations for SAP Business Suite powered by SAP HANA

Cross Industry

Finance – Real-Time Financial Performance Management

Value
Real-time financial close ensures accelerated closing activities through faster processes, reporting without data latency within an heterogeneous financial consolidation landscape. Product costing enables the modeling and simulation of (design-to-cost) product cost in real time, management of the impact of product and production cost across an organization for volatile resource and commodity prices, and end-to-end product cost management analytics.

SAP HANA Innovation
SAP HANA offers features for custom planning with dimensions and at the aggregations level for real-time simulations. Critical-path processes and reports are accelerated in a central, comprehensive, and real-time consolidation environment. You can achieve almost instant response times – even with a large number of calculations for products or across companies. An enlarged analytical footprint for enterprise profitability is also available.

Business Drivers
- Service-level performance
- Staff alignment
- Transaction-to-analysis time

Your Improved Transactions

<table>
<thead>
<tr>
<th>Tcode</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>CKMPCD</td>
<td>Display Price Change Document</td>
</tr>
<tr>
<td>CK11N</td>
<td>Create Material Cost Estimate</td>
</tr>
<tr>
<td>CK24</td>
<td>Price Update with Cost Estimate</td>
</tr>
<tr>
<td>CK13</td>
<td>Display Product Cost Estimate</td>
</tr>
<tr>
<td>CK11</td>
<td>Create Product Cost Estimate</td>
</tr>
<tr>
<td>MR11</td>
<td>GR/IR account maintenance</td>
</tr>
<tr>
<td>KE30</td>
<td>Execute profitability report</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tcode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KE24</td>
<td>Line Item Display - Actual Data</td>
</tr>
<tr>
<td>CK40N</td>
<td>Edit Costing Run</td>
</tr>
<tr>
<td>CK13N</td>
<td>Display Material Cost Estimate</td>
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<tr>
<td>KKS1</td>
<td>Variances - Product Cost by Lot</td>
</tr>
<tr>
<td>KKS2</td>
<td>Variances - Product Cost by Lot</td>
</tr>
<tr>
<td>CKM3</td>
<td>Material Price Analysis</td>
</tr>
<tr>
<td>CKM3N</td>
<td>Material Price Analysis</td>
</tr>
</tbody>
</table>
Understand the Restrictions

Understand the Suite on HANA Support Timeline

- Not all Business Processes are Supported in SP0 (Note 1768031)
- Not all Industry Solutions are Supported in SP0 (Note 1768031)
- Scale-Out Not Yet Released Limiting System Size (note 1774566)
Size Your System Appropriately

- Since SAP HANA completely loads the database to main memory, the system has to have at least as much RAM, as the compressed database plus some operational buffer (e.g. for join calculation, delta-merges, ...)

- Due to the relation between RAM and CPU a maximum amount of RAM is set for SAP HANA appliances

→ SAP HANA architecture leads to a tight relation between overall uncompressed database size and appliance size

\[
\text{RAM} \geq 2 \times \frac{\text{uncompressed database size}}{\text{SAP HANA compression factor}}
\]

buffer size of source database \sim 4 \text{ for ERP/SCM/CRM}
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Migration Process

Prepare → Migrate → Post Migration Activities → Optimize
Dual-Stack Systems

„[...] as of SAP Business Suite 7i2011, it will no longer be possible to upgrade an SAP dual-stack system to a higher release [...]“. (note 1655335)

⇒ Suite on HANA is based on NetWeaver 7.40, not supporting dual-stack installations
⇒ Dual-stack systems have to be split before a HANA migration
⇒ Java stack stays on current DB / hardware, since Java is not yet supported to run on HANA

Unicode

- SAP HANA runs natively on Unicode only
- Unicode conversion can technically be done during the database migration, but preparatory steps are required

Achieving / System Cleanup

• If your system exceeds the the sizing limitations for Suite on HANA consider initiating an archiving or data off-migration effort before beginning a Suite on HANA project. Also consider cleanup activities in note #706478.
Customer Specific Coding

- The transition to Suite on HANA may require adjustment of customer specific coding. This could be due to the Unicode Migration (if the customer is not Unicode yet), specific commands not optimized for HANA, or opportunities to improve poor performing code by utilizing features of the HANA engine.

Maintenance Optimizer

- The maintenance Optimizer will lead you through all steps of the migration. As of ECC6 SP4 Maintenance Optimizer is mandatory.

- Maintenance Optimizer (MOpz) compares the installed components of the system with the software component information maintained by SAP Global Supports Backend and Product and Production Management System (PPMS). Based on the requested update/upgrade path, MOpz generates list of required components and configuration information.

- For Add-ons, Software dependencies are evaluated and gathers required configuration files such as Attribute Contribute Package (ACP), if update path are not available will notify the Maintenance Transaction operator for an intervention, eg. disables the particular add-on.
Prepare → Migrate → Post Migration Activities → Optimize
Original, three-step migration approach:

1. Update to latest Enhancement Package level (EhP 6, 6.06) for ERP 6.0 using Software Update Manager (SUM) 1.0 SP6
2. Update to corresponding Enhancement Package for SAP HANA (EhP 6 for HANA, 6.16) Using SUM 1.0 SP6
3. Database migration (heterogeneous system copy) to SAP HANA using Software Provisioning Manager 1.0 SP1

ERP 6.06 is a prerequisite for ERP 6.16
Future HANA enabled EhP will not require prerequisite EhP as such
Newly Released two-step migration approach:

1. Update to latest Enhancement Package level (EhP 6, 6.??) for ERP 6.0 & HANA
2. Database migration (heterogeneous system copy) to SAP HANA
Software Update Manager 1.0 SP 6.0
http://service.sap.com/erp-ehp6-inst
http://service.sap.com/sltoolset

Software Update Manager 1.0 SP 6.0 for HANA
http://service.sap.com/erp-ehp6hana-inst

Software Provisioning Manager Link
http://service.sap.com/sltoolset
http://scn.sap.com/docs/DOC-8324
Cluster / pool tables

During the migration to SAP HANA all cluster and pool tables are converted to transparent tables to make all tables accessible on database level.

Secondary indices

Review note number 1794297 for information regarding secondary indexes and the opportunities to save memory space on secondary indexes in certain cases.
Migration Process

- Prepare
- Migrate
- Post Migration Activities
- Optimize
Technical Post-Migration Tasks – Ensure proper operation of the SAP Technical Platform –

Technical integration tasks – confirm SAP connections and communication with external systems. Add-on products are tested and functioning.

Infrastructure Integration – confirming Backup/Recovery, High Availability, Disaster/Recovery, Solution manager monitoring and integration, SLD integration, 3rd party monitoring solutions, proprietary tools.

Business Process Validation – full testing and verification of ECC functional processes

SAP GOINGLIVE CHECK – verification of system migration and optimization by SAP Active Global Support
Migration Process

Prepare → Migrate → Post Migration Activities → Optimize
What is the businesses level of tolerance for change:

- Performance Enhancement without disruption?
- Business process refinement?
- Business process innovation?
Post Migration Optimization

- Redesigned business processes developed to utilize HANA performance
- SAP HANA Live Analytics for Business Suite operational reporting
- Roll out of ‘HANA optimized’ SAP enhanced transactions for Business Suite
- Optimization of ‘zProgram’ ABAP code for HANA capabilities
- Suite on HANA technical deployment – no process change

User Change Management Impact

Low

High

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Lessons Learned

- Map Suite on HANA value case and understand roadmap to deploy enhancements including ‘out of the box’ improvements + business process opportunities
- Utilize http://www.suiteonhana.com to help with value case identification for existing transactions
- Understand current landscape and add-on’s impact when Suite on HANA will be available for you – if availability delays are anticipated consider a target Suite accelerator vs. full Suite on HANA
- Ensure archiving and system cleanup are considered and reviewed prior to launching your Suite on HANA project
- Do plan to evaluate and be prepared to remediate any custom ABAP if necessary
- SAP upgrades and migrations should be performed by experienced, knowledgeable personnel
Questions
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