SAP HANA on UCS
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Agenda

- SAP HANA – Recap
- Business Suite Powered by SAP HANA
- Business Scenario Recommendations
- Potential benefits to Manufacturing customers
In-memory computing
Rethink

Yesterday

CPU

Memory

Software and data reside on HDD

Disk

• IO constraint
• Support many platforms
• Optimized for None

Today

CPU
Multi-Core
Massively Parallel
SingleOptimized Platform

64-bit address space supports 2TB RAM

Memory
Row and Column Store
No aggregates
Insert Only on Delta

Partitioning
Compression

Disk
Logging and Backup – Solid State / Flash / HDD

• Take advantage of latest advances in hardware
• Minimum IO time
• Optimized for x86 platform
SAP HANA – A Component View

ACID Compliant Database
- In-Memory
- Row Store
- Column Store

1. BICS
2. NetWeaver BW
3. SAP BOBJ

1. ODBC / JDBC
2. 3rd Party Apps
3. 3rd Party Tools

In

Out

SQL

Unstructured (Text)

Parallel Calc

Scripting Engine

Business Function Library

Data Services

HANA Studio

BICS

MDX

OLAP

XS App Server

OData

Unstructured (Text)

Predictive Analysis Library

OLAP

“R” HS Integration

DCX (SAP Data)

SLT

HANA Bulk Loader

1. Batch Transfer
2. SAP & Non-SAP
3. Extensive Transformations
4. Structured & Unstructured
5. Hadoop Integration

1. ODBO
2. MS Excel
3. 3rd Party OLAP Tools

1. HTTP
2. RESTful services
3. JSON / XML

1. Near Real Time
2. SAP & Non-SAP
SAP HANA based applications

SAP Business Warehouse
SAP B1 Analytics
SAP Smart Meter Analytics
Consumer Apps (Recalls +)
SAP BusinessObjects BI / BIOD
SAP Business Planning and Consolidation
SAP Finance and Controlling Accelerator
SAP CO-PA Accelerator
SAP Customer Segmentation Accelerator
SAP Sales Pipeline Analysis

SAP Bank Analyzer for financial reporting
SAP Deposit Management for transaction history reporting
SAP Cash Forecasting
SAP Collection Insights
SAP Grid Infrastructure Analytics
SAP Sales & Operational Planning
SAP Supplier Infonet
SAP Demand Signal Management
SAP Accelerated Trade Promotion Planning
SAP Situational Awareness

Apps from ISVs, Startups, Custom
New Mobile Apps
New Cloud Apps
SAP Business Suite

SAP HANA Platform
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A vision

2010 Hasso presented at Sapphire Orlando a new a bold Vision. OLAP and OLTP can run on the same in-memory database and create the next generation business platform.

The vision included a three phase roadmap with its last phase being Suite on HANA.

A Promise delivered

In a short three years the Vision has become a reality.

After delivering HANA in Nov 2010, BW and B1 on HANA in 2012, we now announced the 3rd phase of our journey on Jan 10th.

SAP Business Suite powered by SAP HANA
SAP Business Suite powered by SAP HANA

The Most Modern Business Platform for Innovation Without Disruption

**Acceleration** of Core Processes in the SAP Business Suite

**Agile Foundation** for Real-time Operational Reporting on SAP Business Suite

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Unveils real-time vision across business processes
Eliminates fragmented reporting on operational activities

Fast Intuitive monitoring & analysis
Empowerment for front-line employees
Immediate results- to-actions

*SAP HANA Analytics Foundation is a separate package for SAP Business Suite*
Enables new generation real-time applications
30+ solutions powered by SAP HANA already available

- Invoice and Goods Receipt Reconciliation
- Working Capital Analytics
- Supply Chain Info Center
- Access Control Role Analytics

Real-Time Applications

No unnecessary data movement
Simplified architecture
Analytics on top of transactions
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SAP Business Suite powered by SAP HANA

23 Business Value Scenarios

**Finance**
- **Accounting and Financial Close**
  - Fast Financial Close
  - Real-Time Financial Performance Management
- **Receivables and Payables Management**
  - Efficient Receivables Management
- **Enterprise Risk and Compliance**
  - Access Control Role Analytics
  - Automated Cross-System Process Control
  - Efficient Payables Management
- **Treasury and Financial Risk Management**
  - Central Treasury Exposure Management

**Marketing, Sales, Service**
- **Sales: Order and Contract Management**
  - Optimized Quote Management
- **Partner/Channel Sales; Sales Support**
  - Insight-Driven Sales
- **Marketing Planning and Resource Management**
  - Insight-Driven Marketing
- **Customer Service Management**
  - Efficient Contact Center
  - Insight-Driven Service

**Supply Chain Management**
- **Warehouse Management & Operational Procurement**
  - Real-Time Inventory Management
  - Efficient Procurement
  - Strategic Purchase Optimization
- **Manufacturing & Supply Planning**
  - Insight-Driven Supply Chain Planning

**Enterprise Asset Management**
- **Maintenance Operations**
  - Maximized Asset Utilization and Uptime

**Human Resources**
- **Core HR and Payroll**
  - Accelerated Organizational Changes Publishing
  - Insight-Driven Workforce Cost Management

**Manufacturing**
- **Production Planning**
  - Real-Time Material Planning
  - Instant Material Flow Control

**Research & Development**
- **Enterprise Portfolio and Project Management**
  - End-to-End Engineer to Order Project Management
  - Maximized Productivity and Profitability For Complex Projects
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## Potential Benefits to a Manufacturing Organization (sample)
- Derived from live customer report

<table>
<thead>
<tr>
<th>Line of Business</th>
<th>Solution Area / Business Scenario</th>
<th>Approximate Execution time in the database today *</th>
<th>Business Impact of Improved Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>Production Planning</td>
<td>&gt; 4 hours</td>
<td>• Make better decisions that impact resource commitments</td>
</tr>
<tr>
<td></td>
<td>• Real-Time Material Planning</td>
<td></td>
<td>• Ability to simulate parallel MRP runs</td>
</tr>
<tr>
<td></td>
<td>• Instant Material Flow Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply Chain Management/</td>
<td>Warehouse Management and Operational Procurement</td>
<td>&gt; 6 hours</td>
<td>• Reduce stock-outs</td>
</tr>
<tr>
<td>Procurement</td>
<td>• Real-Time Inventory Management</td>
<td></td>
<td>• Reduce inventory and safety stocks</td>
</tr>
<tr>
<td></td>
<td>• SAP ERP - For Operational Reporting</td>
<td></td>
<td>• Spend and Order visibility to drive better rates with suppliers</td>
</tr>
<tr>
<td></td>
<td>• Efficient Procurement</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Strategic Purchase Optimization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing, Sales, Service</td>
<td>Sales: Order and Contract Management</td>
<td>&gt; 10 hours</td>
<td>• Sales order visibility</td>
</tr>
<tr>
<td></td>
<td>• Accelerated Operational Reporting</td>
<td></td>
<td>• Fulfillment rate</td>
</tr>
<tr>
<td></td>
<td>• Optimized Quote Management</td>
<td></td>
<td>• Days sales outstanding</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Monitor Campaign performance</td>
</tr>
<tr>
<td>Finance</td>
<td>Accounting and Financial Close</td>
<td>&lt; 1 hour</td>
<td>• Reduced time to close books</td>
</tr>
<tr>
<td></td>
<td>• Fast Financial Close</td>
<td></td>
<td>• Daily P&amp;L</td>
</tr>
<tr>
<td></td>
<td>• Real-Time Financial Performance Management</td>
<td></td>
<td>• Plan v/s Actual</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Reduced cost of finance</td>
</tr>
</tbody>
</table>

* - Database Time extracted from the column “Total Database Time (s)” from ST03N in the production system
Live Demo