SAP Business One analytics powered by SAP HANA
An Overview

Richard Duffy
SAP Business One Product Evangelist
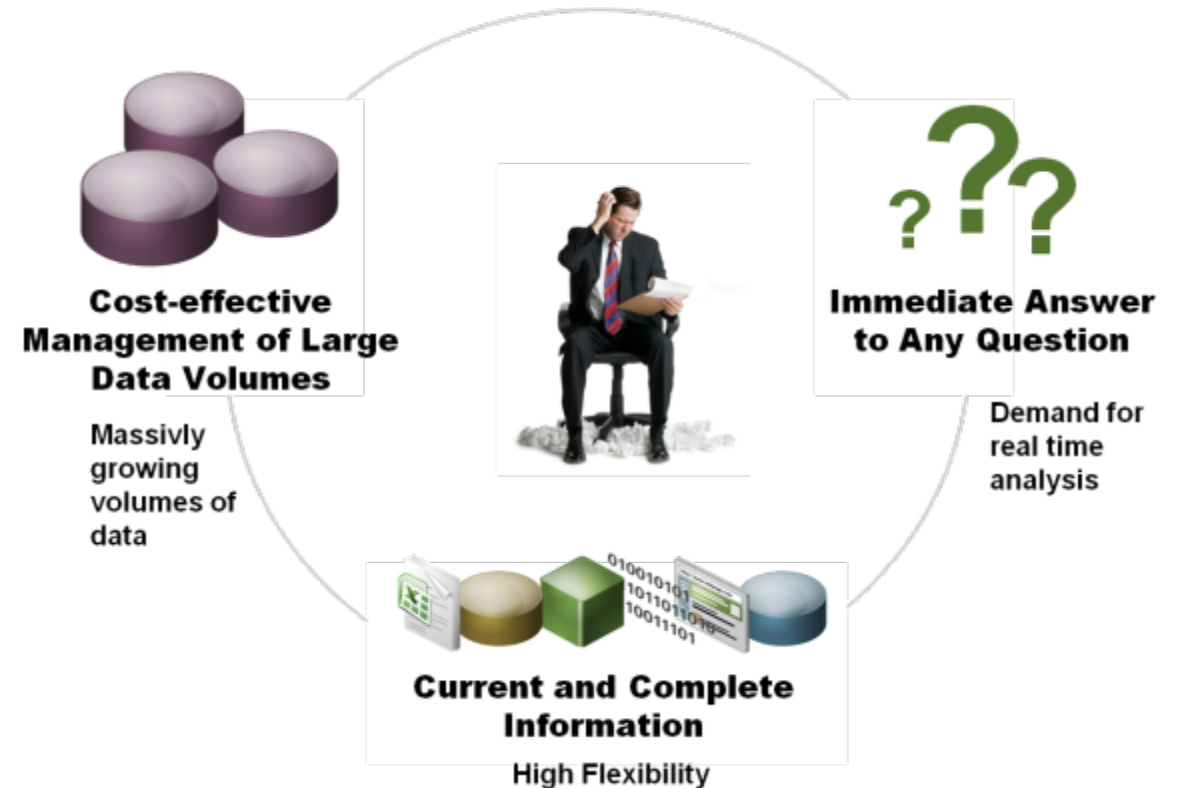
SAP

SAP Business One Analytics Platform

What do Small Businesses expect?

Small Business Owners need an analytics platform that is not a full-scale BI offering, but with :

- Ready to use content

- Ad-hoc analysis and Interactive analytics

- Superior performance - "real time" access

- A seamless user experience

- Ease of use and rapid implementation

- Affordability

Cost-effective Management of Large Data Volumes

Massivly growing volumes of data

Immediate Answer to Any Question

Demand for real time analysis

Current and Complete Information

High Flexibility

SAP Business One Analytics Portfolio:
Major Investment Areas

Seamless user experience

Semantic Layer

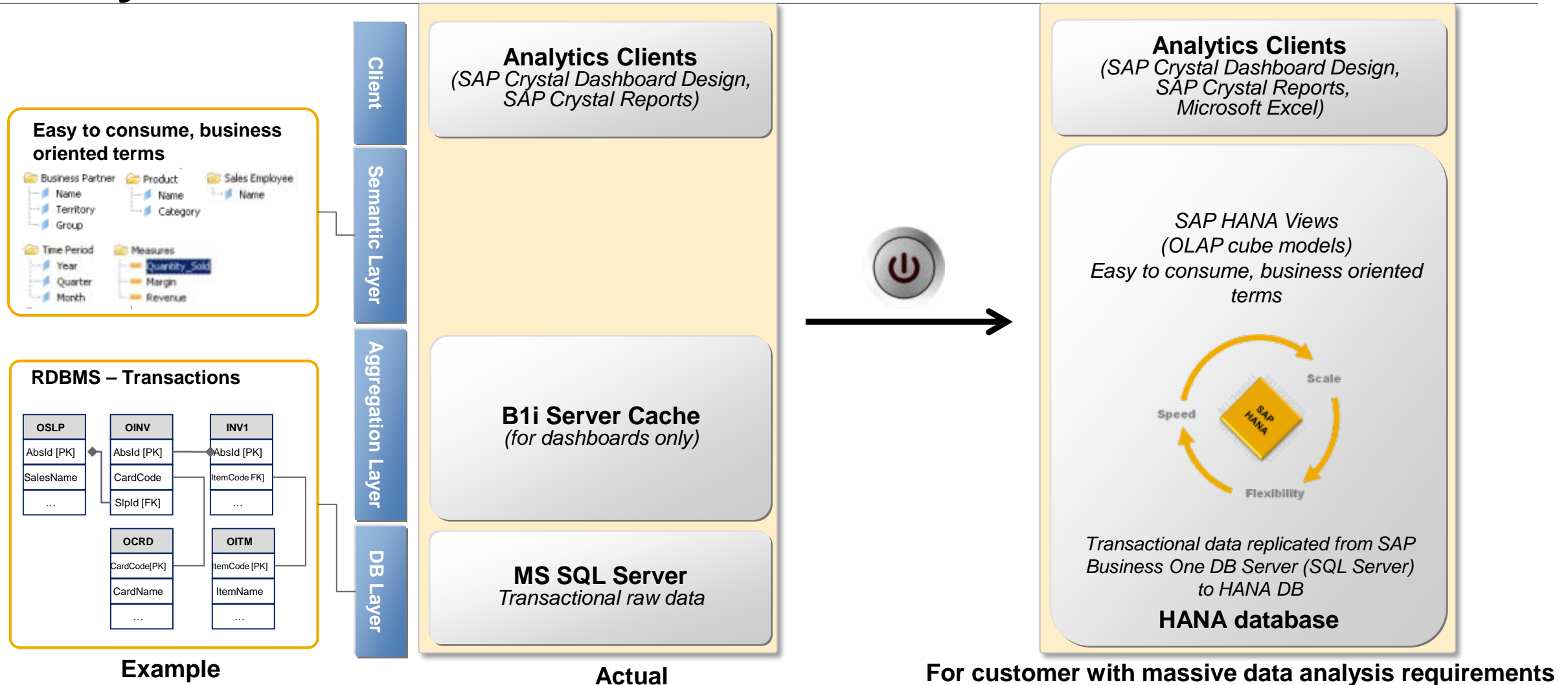Analytical Content

Interactive Analysis

Groundbreaking In-Memory Technology

Row-based DBMS vs Column-based DBMS

From application cache to In-Memory DBMS

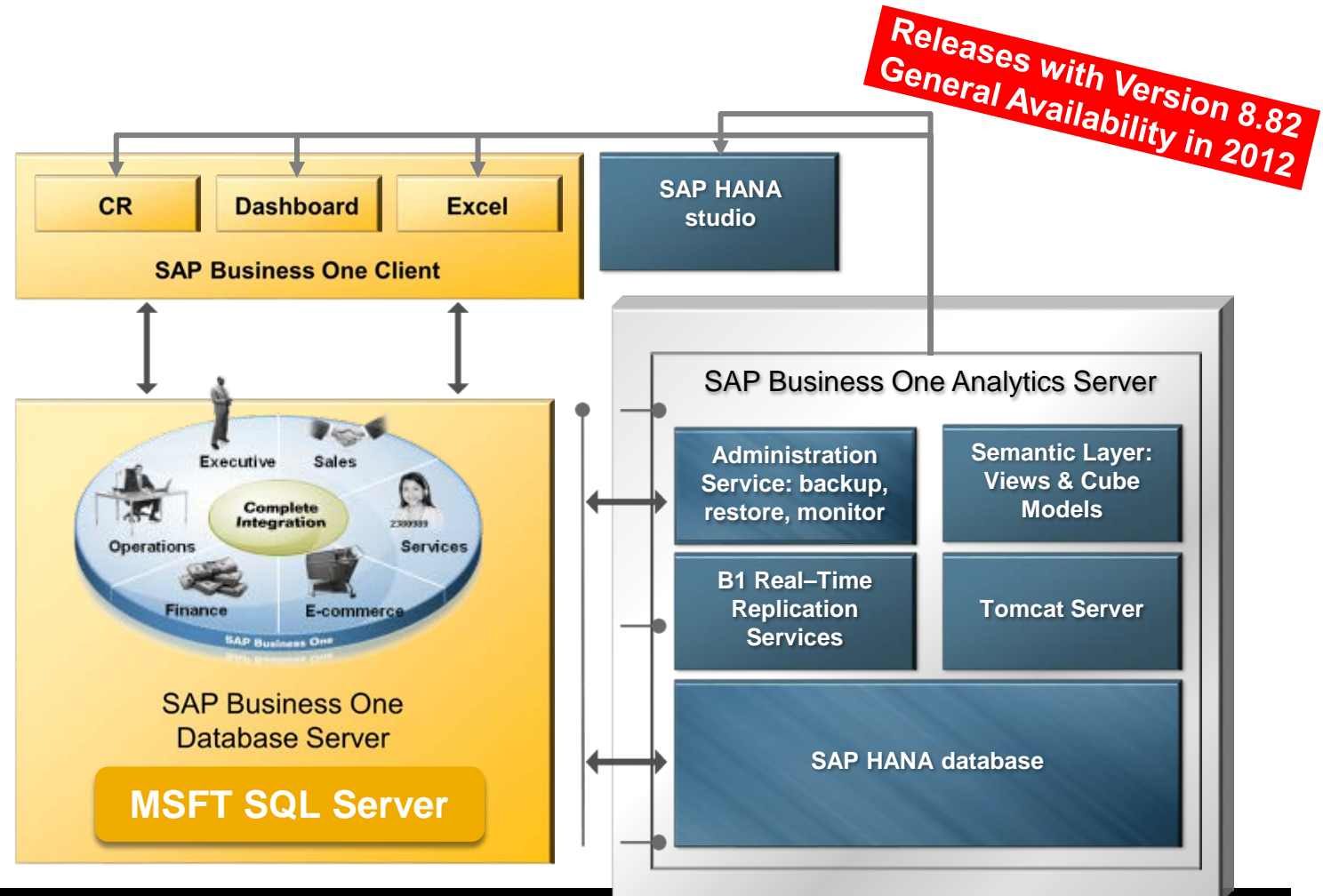Real-Time Access to Transactional Data

The Technology Evolution for SAP Business One Analytics

Easy to consume, business oriented terms

RDBMS – Transactions

Client

Semantic Layer

Aggregation Layer

DB Layer

Example

Actual

Analytics Clients
(SAP Crystal Dashboard Design, SAP Crystal Reports)

B1i Server Cache
(for dashboards only)

MS SQL Server
Transactional raw data

Analytics Clients
(SAP Crystal Dashboard Design, SAP Crystal Reports, Microsoft Excel)

*SAP HANA Views
(OLAP cube models)
Easy to consume, business oriented terms*

Scale

Speed

SAP HANA

Flexibility

Transactional data replicated from SAP Business One DB Server (SQL Server) to HANA DB

HANA database

For customer with massive data analysis requirements

SAP Business One analytics powered by SAP HANA

Delivers in-memory technology and analytics innovations without disruption to the customer's business

→ Benefits for both installed base and new customers

→ Seamless user experience

→ Semantic Layer

→ Interactive Analysis

→ Superior performance

→ New analytics content

Releases with Version 8.82 General Availability in 2012

Easy to Use
A Seamless User Experience - Overview Demonstration

Run "in-memory" reports from normal B1 menu

Run "in-memory" Dashboards from normal B1 cockpit

Run enterprise search from normal B1 application

SAP Business One Analytics Server

SAP Business One SQL Server

Network.

Welcome, Jayson Butler. You are in the Sales cockpit of OEC Computers.

Look up master data and documents   Search

My Cockpit / Modules / Drag & Relate

- Administration
- Financials
- Sales Opportunities
- Sales – A/R
- Purchasing – A/P
- Business Partners
- Banking
- Inventory
- Production
- MRP
- Service
- Human Resources
- Reports
- Interactive Analysis

Service Call - HANA

Overview

Incoming Calls Today 1
- Misc. Issues
- Mouse
- PC Issues
- Printer Issues

Calls to Close 35
- Others
- Due by Today
- Overdue

Backlog of   Last 6 Months

16
12
8
4
0
07-2011 08-2011 09-2011 10-2011 11-2011 12-2011

● Misc. Issues ○ Mouse ● PC Issues ● Printer Issues

Details of   Misc. Issues

Employee Workload 14

Fred Buyer
Jim Boswick
Juan Peron
Jayson Butler
Not Assigned

0   2   4   6   8

Others   Due by Today   Overdue

Service Call Turnover of   Last 6 Months

16
12
8
4
0
07-2011 08-2011 09-2011 10-2011 11-2011 12-2011

○ Closed ● New

Open Documents

- Sales Quotations
- Sales Orders
- Deliveries
- Returns
- A/R Down Paym...
- A/R Down Paym...
- A/R Invoices
- A/R Credit Memos
- A/R Reserve Inv...
- A/R Reserve Inv...

Common Functions

Sales Opportunity	Sales Quotation	Sales Order	Delivery
A/R Invoice	Dunning Wizard	Item Master Data	Price Lists
Business Partner ...			

Messages and Alerts

Activities Scheduled for Today	10/20/2011
Activities Scheduled for Today	10/21/2011
Activities Scheduled for Today	10/22/2011
Activities Scheduled for Today	12/01/2011

System Message Log (50)

☑ Errors   ☑ Warnings   ☑ Information   50 ▾ Last Messages to Display

#	Message	Help	Context	Date / Time	Message ID
1	No recurring postings require posting today [Message 680-15]			07/12/2011 17:00:20	-1
2	Operation completed successfully [Message 200-48]			07/12/2011 15:54:14	-1
3	Warning! No valid contracts exist for the customer			07/12/2011 15:53:51	-1
4	Operation completed successfully [Message 200-48]			07/12/2011 15:53:41	-1

12/07/2011
17:11

SAP Business One

SAP Business One Enterprise Search
SAP Business One App Powered by SAP HANA

Functional Highlights

- Seamless SAP Business One client experience

- Hierarchical search in all SAP Business One modules (repositories)

- Full text search for all business object types

- Narrow down options per business object type

- Link to SAP Business One form

- Compliant with SAP Business One data ownership concept

- Ease navigation with business object map

- Report & printing

A Demonstration of Enterprise Search

Jayson is an account representative of OEC Computers.

He just got a call from a customer (customer reference No. 256789) and the customer asks him when the orders for this month will be delivered.

Jayson uses enterprise search to search customer reference No. 256789 and find all related business objects.

He filters the search results by AR invoice type and further narrow down by open invoice and recent month.

Jayson selects the 1st invoice, links to the related data, he finds the related delivery is scheduled for 15th Dec. So he answers the customer that the goods will arrive in 2 days.

Welcome, Jayson Butler. You are in the Home cockpit of OEC Computers.

Search

My Cockpit / Modules / Drag & Relate

- 📋 Administration
- 🔁 Financials
- ⇌ Sales Opportunities
- 🏷 Sales - A/R
- 🛒 Purchasing - A/P
- 📷 Business Partners
- 🏦 Banking
- 📦 Inventory
- ⚙ Production
- 📋 MRP
- 🔧 Service
- 👥 Human Resources
- 📊 Reports

Service Call - HANA

Overview

Incoming Calls Today 0

- Misc. Issues
- Mouse
- PC Issues
- Printer Issues

Calls to Close 34

- Others
- Due by Today
- Overdue

Backlog of   Last 6 Months

07-2011 08-2011 09-2011 10-2011 11-2011 12-2011

- Misc. Issues
- Mouse
- PC Issues
- Printer Issues

Details of   Misc. Issues

Employee Workload 13

- Fred Buyer
- Jim Boswick
- Juan Peron
- Jayson Butler
- Not Assigned

0 2 4 6 8

- Others
- Due by Today
- Overdue

Service Call Turnover of   Last 6 Months

07-2011 08-2011 09-2011 10-2011 11-2011 12-2011

- Closed
- New

Open Documents

- Sales Orders (35)
- Deliveries (53)
- Returns (8)
- A/R Down Paym... (3)
- A/R Down Paym... (2)
- A/R Invoices (259)
- Purchase Quota... (39)
- Purchase Orders (37)
- Goods Receipt POs (44)
- Goods Return (13)
- A/P Down Paym... (0)
- A/P Credit Memos (17)

Common Functions

Sales Order	Delivery	Return	A/R Down Payment ...
A/R Invoice	A/R Credit Memo	Purchase Order	Goods Receipt PO
A/P Invoice	Goods Return	A/P Reserve Invoice	

Messages and Alerts

Remind Notice for Phone Call:	09/15/2011
Remind Notice for Meeting:	09/15/2011
Remind Notice for Phone Call:	09/15/2011

System Message Log (2)

☑ Errors ☑ Warnings ☑ Information 50 ▾ Last Messages to Display

| #	Message	Help	Context	Date / Time	Message ID
1	No recurring postings require posting today [Message 680-15]			07/12/2011 16:45:32	-1
2	This use of the software is subject to the End User License Agreement (EULA)			07/12/2011 16:45:15	470000003

12/07/2011

17:13

SAP Business One Analytics
Content Powered By SAP HANA

The solution that provides compelling SAP Business One based operational analytics - quickly and affordably
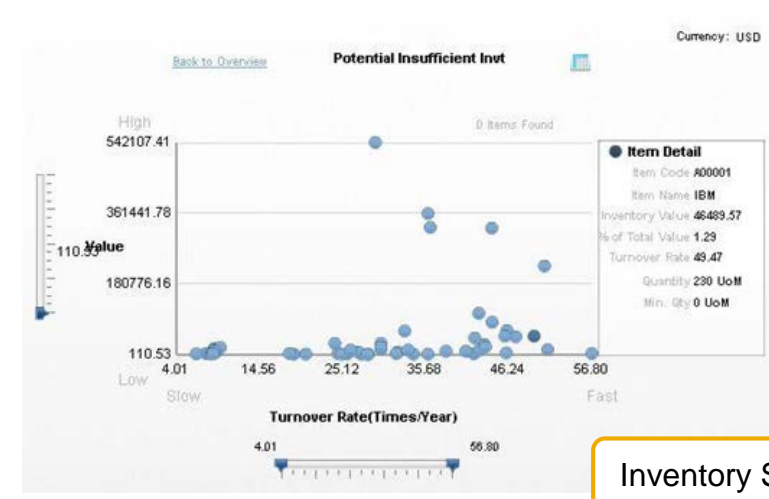
- **Migrate calculation intensive CR Reports (4)**

- **Migrate current dashboards (3)**

- **New dashboards (4)**

- **Semantic Layer (8)**
  - i. Financial module
  - ii. Sales module
  - iii. Inventory module
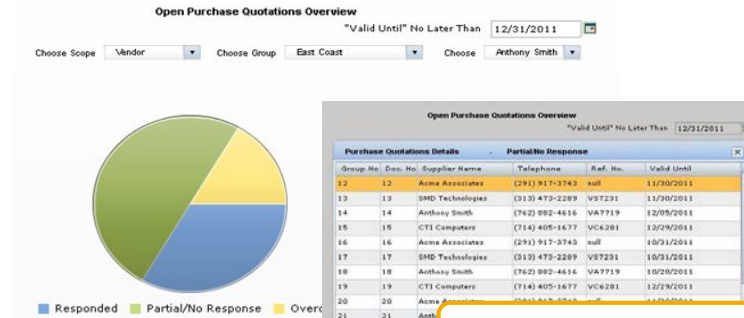
Purchase Quotations
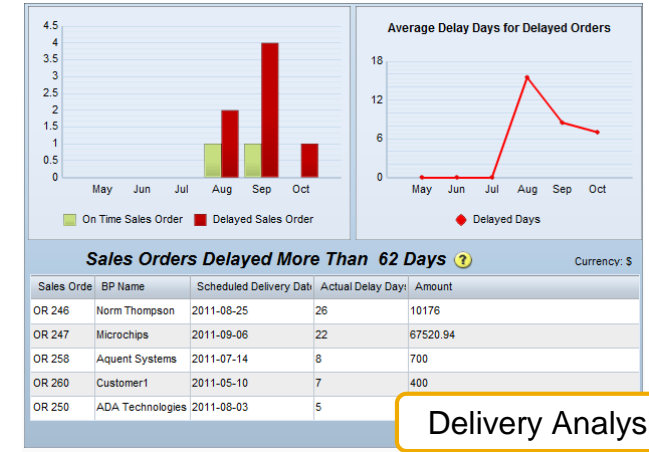
Delivery Analysis

Inventory Status

SAP Business One Analytics
Content Powered By SAP HANA

In addition to Crystal Reports and dashboards we deliver pre-defined Semantic Layers to enable ad-hoc (interactive) analysis via Microsoft Excel and rapid content development based on dimensions & measures

Financials

Dashboard

    Customer Receivables Aging

    Cash Flow Forecast

Semantic Layer

    Aging

    Cost Center Analysis

    Profit & Loss Analysis

    Liquidity Analysis

Sales & Marketing

Dashboard

    Sales Analysis

    Delivery Analysis

Crystal Report

    Periodic Sales Analysis by Customer

    Customer Open Item List

Semantic Layer

    Sales Opportunity Analysis

Purchasing

Dashboard

    Purchase Quotations

Inventory

Dashboard

    Inventory Status

Crystal Report

    Inventory Turnover Analysis

Semantic Layer

    Inventory Turnover Analysis

Service

Dashboard

    Service Call

Cross Module

Crystal Report

    Monthly Customer Report (order, invoice, payment, return)

Easy to Use
Interactive Analysis – Empowering Business Users

A Demonstration of Interactive Analysis for sales professionals

Richard is the sales manager of OEC Computers.

He wants to do an ad-hoc analysis of his sales prior to the monthly sales meeting

He selects the Sales Analysis option from Interactive Analysis inside SAP Business One

He then selects the relevant customer, profit and sales dimensions in to his Excel Pivot Table.

Then he wants to know the details by business partner category by Month and Year

Now he's got the information he wants to drill down to see the individual business partners

Welcome, manager. You are in the Home cockpit of OEC Computers.

Look up master data and documents   **Search**

Administration
Financials
Sales Opportunities
Sales - A/R
Purchasing - A/P
Business Partners
Banking
Inventory
Production
MRP
Service
Human Resources
Reports
Interactive Analysis
- Cost Center Analysis
- Budget Analysis
- Inventory Turnover Analysis
- Sales Opportunity Analysis
- Sales Revenue Analysis

Service Call - HANA

Overview

Incoming Calls Today 1
- Misc. Issues
- PC Issues
- Printer Issues

Backlog of   Last 7 Days

1-12   2-12   3-12   4-12   5-12   6-12   7-12

Misc. Issues   PC Issues   Printer Issues

Calls to Close 6
- Others
- Due by Today
- Overdue

Details of   Misc. Issues

Employee Workload 1

Fred Buyer
Not Assigned

0   1   2   3   4

Others   Due by Today   Overdue

Service Call Turnover of   Last 7 Days

1-12   2-12   3-12   4-12   5-12   6-12   7-12

Closed   New

Open Documents
- Sales Quotations
- Sales Orders
- Deliveries
- Returns
- A/R Down Paymen...
- Purchase Quotat...
- Purchase Orders
- Goods Receipt POs
- Goods Return
- A/P Down Paymen...
- A/P Down Payme...
- A/P Invoices
- A/P Credit Memos

Common Functions
- Sales Quotation
- Sales Order
- Delivery
- Return
- A/R Down Payment ...
- A/R Invoice
- A/R Credit Memo
- A/R Reserve Invoice
- Purchase Order
- Goods Return
- Goods Receipt PO
- A/P Invoice
- A/P Reserve Invoice

Messages and Alerts

System Message Log (50)

☑ Errors   ☑ Warnings   ☑ Information   50 ▼ Last Messages to Display

#	Message	Help	Feedback	Context	Date / Time	Message ID
1	Your settings will be lost once you close the widget. Do you want to continue?				07/12/2011 18:53:27	480000071
2	Operation completed successfully [Message 200-48]				05/12/2011 18:52:48	-1
3	Warning! No valid contracts exist for the customer				05/12/2011 18:52:35	-1

12/07/2011
18:58

SAP Business One

Quick Time to Implement
Semantic Layer, Easy to Extend

Predefined Models

- Cost center analysis
- Cost account vs. financial accounting
- Budget analysis
- Aging analysis
- Inventory turnover analysis
- Dynamic cash prediction
- Sales opportunity analysis
- Sales revenue analysis
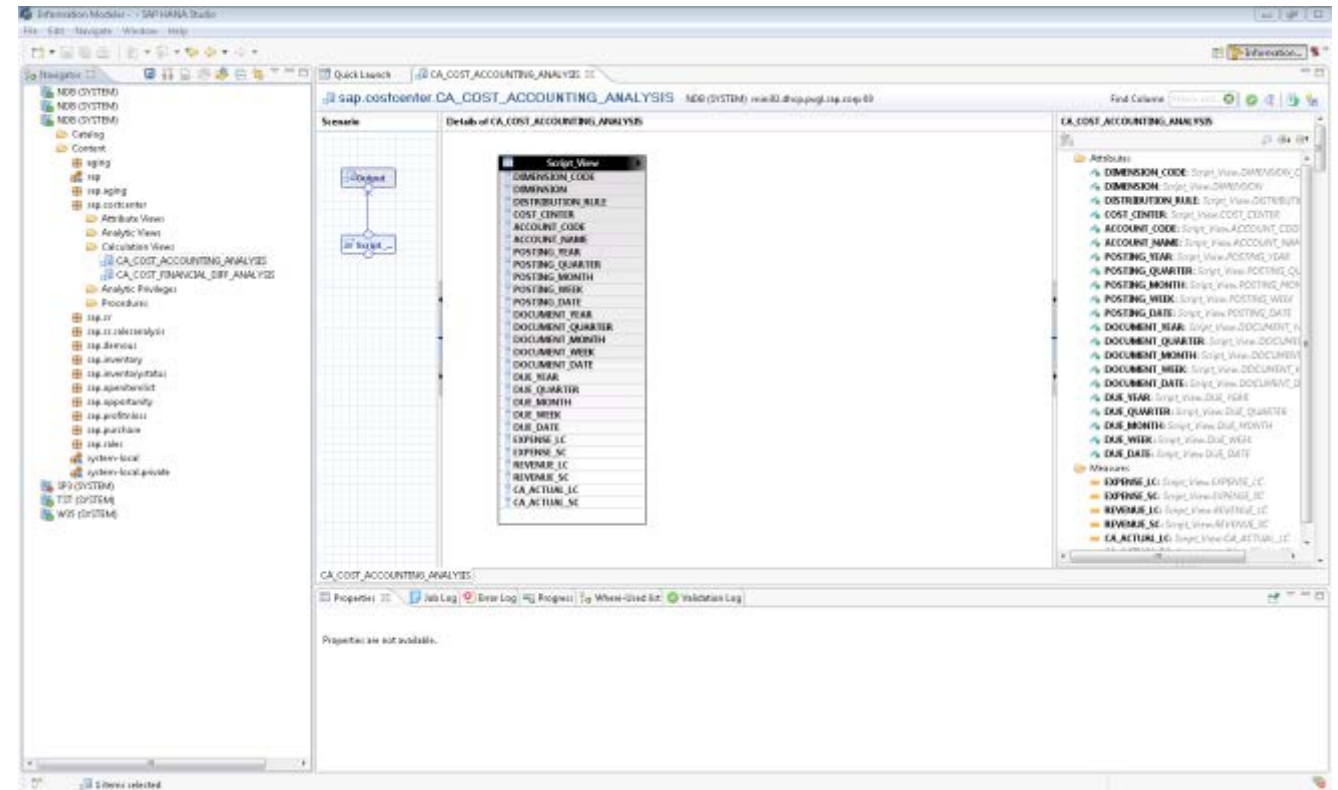
A Demonstration of Ad-Hoc Analysis for finance professionals

Lisa is the finance manager of OEC Computers.

She wants to quickly find out the current status of budget usage.

First she selects the relevant dimensions and measures.

Then she wants to know budget situation per year and per quarter.

But she also wants to change the layout of the report based on her need, e.g., change the quarter dimension to a column instead of a row.

Now she wants to narrow it down to see only data for the 4th quarter and 2011.

So she changes the Excel pivot table to filter accordingly.

PivotTable1

To build a report, choose fields from the PivotTable Field List

PivotTable Field List

Choose fields to add to report:

Σ Values
- Actual Amount LC
- Actual Amount SC
- Budget Amount LC
- Budget Amount SC
- Difference Amount LC
- Difference Amount SC
- Future Amount LC
- Future Amount SC
- Total Amount LC
- Total Amount SC

BUDGET_SCENARIO
- Budget Scenario Name
- BUDGET_SCENARIO

BUDGET_DATE
- BUDGET_DATE
- Month

Drag fields between areas below:

Report Filter

Column Labels

Row Labels

Σ Values

Defer Layout Update   Update

Rapid Design based on existing tools and content
Develop Crystal Reports and Dashboards based on HANA DB

Crystal Reports

- Crystal Reports 2008 SP5 (end of Nov. 2011)

- Runtime: same user experience

- Content Management: same user experience

- Design: user can have HANA views or procedures or direct query as data source (user is not able to query over B1 tables in HANA-DB)

Dashboards

- Runtime: same user experience

- Design: same user experience except only one difference - **Info.xml of dashboard package: <IsIMDB>Y</IsIMDB>**

- Content Management: same user experience, but no B1i

In-Memory Technology drives Business Opportunities

In-Memory Computing

Address Known Pain Points

- Performance constraints
- Database size impact
- Redundant aggregates
- Limited flexibility in drill down
- High resource consumption by batch jobs

Create New Value with New Apps

Leverage consumer and device-related data

Sophisticated yet interactive forecasting & simulation

Integrated business planning
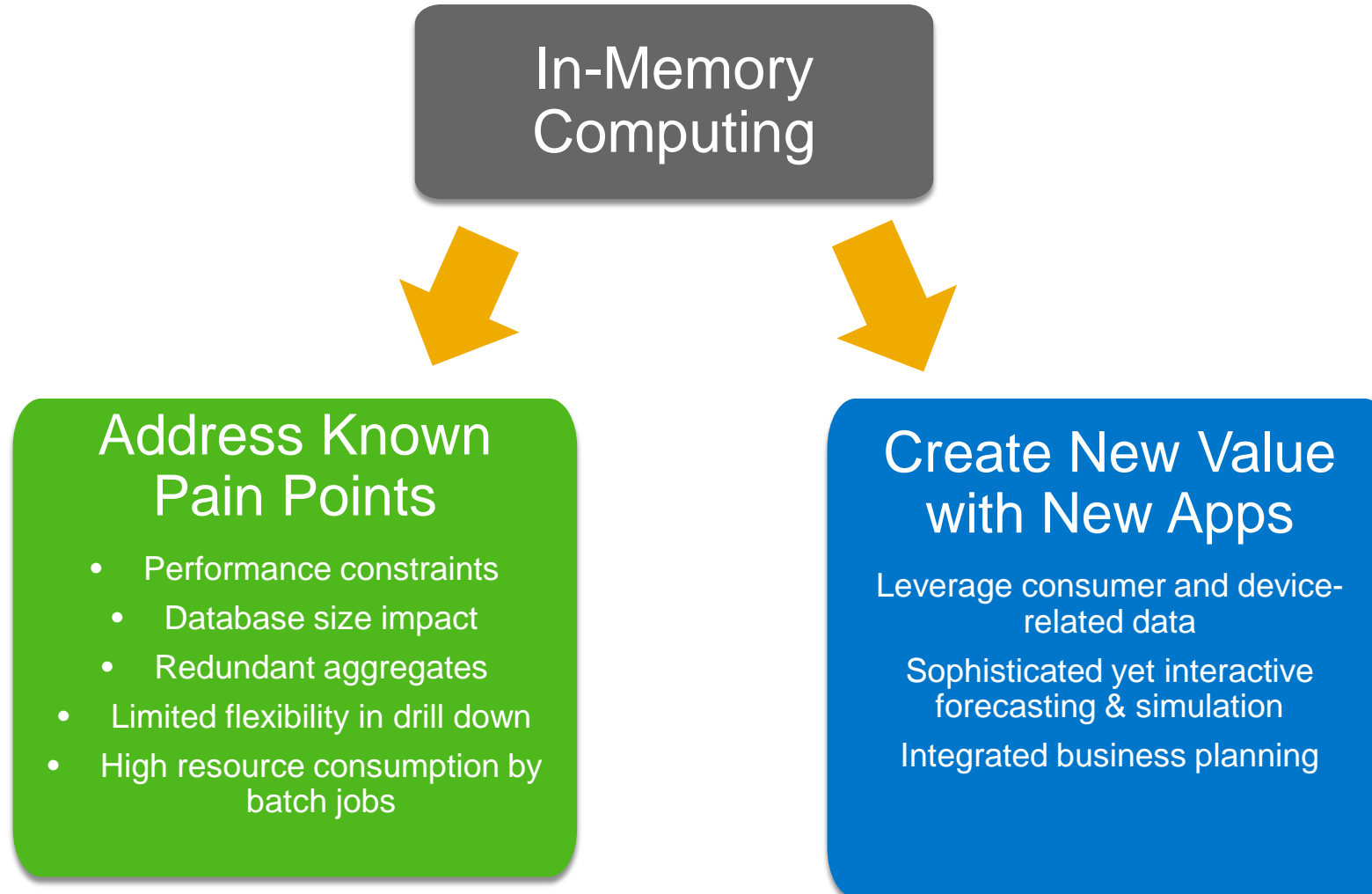
In-Memory Technology Drives Business Opportunities

New SAP Business One App: Payment optimization and liquidity forecast
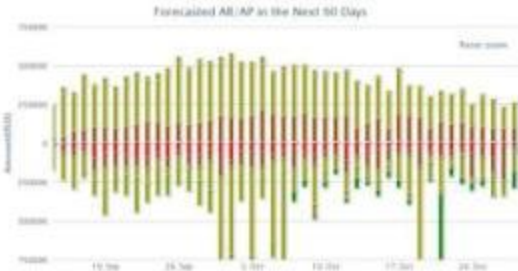
- Forecast Accounts Receivable based on historical data
- Liquidity forecast to ensure healthy operations
- Best payment strategy to maximize discounts
- Propose the right financing services at the right time

SAP Business One on HANA-DB: Hybrid Solution Architecture
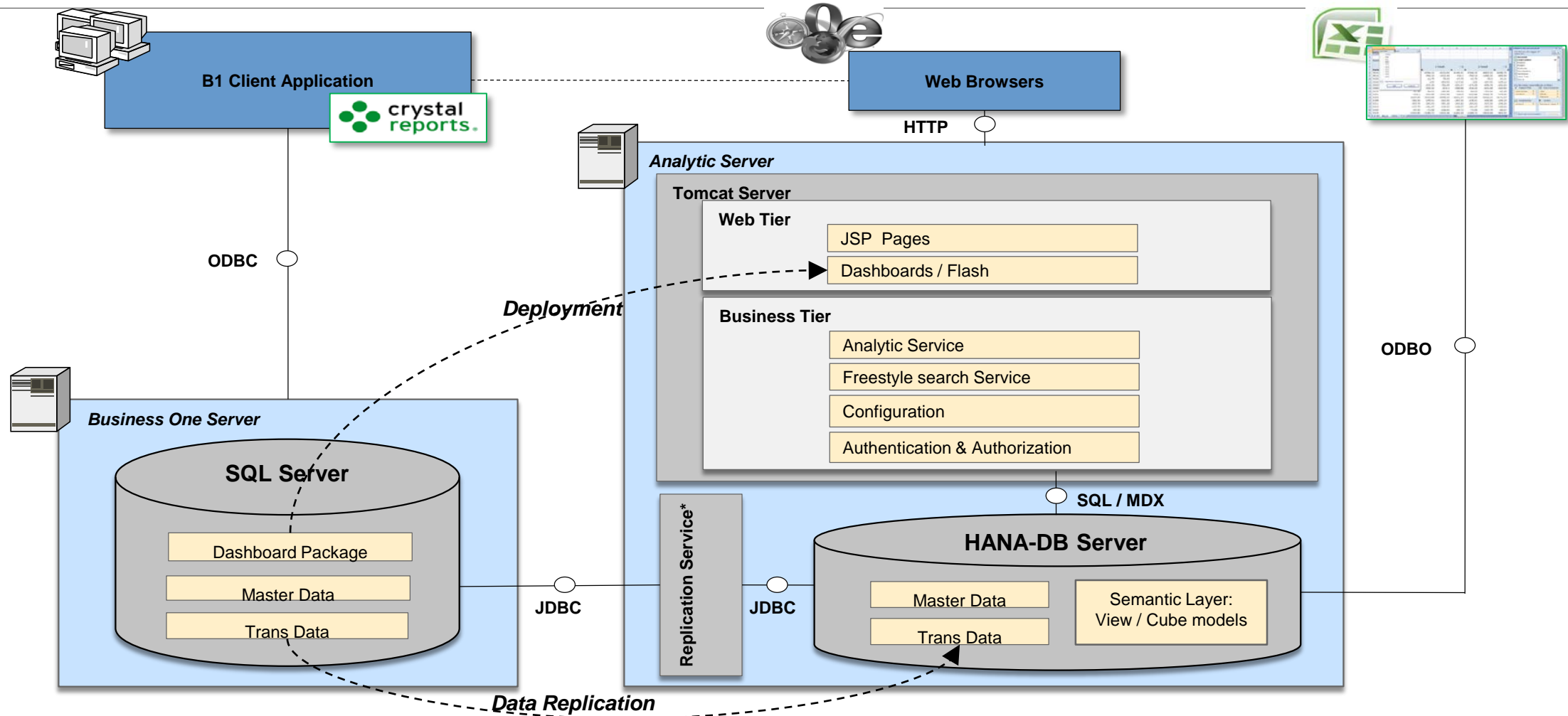
Note: ▪ Semantic layer (OLAP cubes) consists of analytic views and calculation views, which can be consumed by both SAP and Partner apps

SAP Business One and New Opportunities:
HANA Adoption Overall Roadmap

# of customers

Pilot

- PoC HANA database run side by side with B1 Server for analytics purpose
- 5 customers / partners joined the pilot program

Pilot complete in Jun.

Phase 1: Hybrid

Phase 1: Hybrid

B1 Client

B1 OLTP

analytics

B1 Server
(SQL Server)

B1 Analytics on HANA DB

HANA DB runs side by side with SAP Business One DB Server (SQL Server)

- Complete OLAP capabilities
- More dashboards & reports
- Enterprise search

Release in Q2 2012 along with B1 8.82 PU

Phase 2: One-Box

B1 Client

B1 OLTP + OLAP

B1 Server
(HANA DB)

SAP Business One runs on HANA database completely for both analytics (OLAP) & transactions (OLTP)

Phase 2.1: Hosting model

Phase 2.2: On-Premise model

- Available for hosting model first considering the partner adoption and add-ons migration

Release to be aligned with B1 9.0, t.b.d. in 2012

Release to be aligned with B1 9.1, t.b.d. in 2013

What Pilot Customers and Partners Say

" *Real-time OLAP for the Small Enterprise market is a niche market with disruptive potential*

Hu Pengchen, CEO of Beijing AVA Technology, B1 Gold partner

" *With real time analysis capabilities of SAP In-Memory Computing, I can get all my sales and operation figures **faster than before**. For example: sales forecast & operation planning, employee performance evaluation, etc… With one time investment to build the multi-dimensional data model in SAP HANA studio, **my IT efforts for ad-hoc report development are reduced from weeks to 1 day !***

Beijing Booan, SAP Business One customer in China

Watch the customer video

" *Leveraging B1 enterprise search on top of SAP In-Memory Computing Technology, we are able to obtain all **relevant business information in seconds with one click freestyle search;** without the pain from the past of navigation among hundreds of forms searching for data.*
*With SAP In-Memory Computing, now my management team can directly **perform multi-dimension analysis by themselves in real time,** and make business decisions within hours based on trusted data, without wasting days waiting for IT to prepare and consolidate data.*

Taiko, SAP Business One customer in China

Thank You!

Contact information:

Richard Duffy, SAP Business One Product Evangelist
richard.duffy@sap.com
SAP Global SME

© 2011 SAP AG. All rights reserved.