SAP® BusinessObjects™ Information Management Solutions

Added Value and Integration Roadmap within SAP deployments

SAP BusinessObjects
Disclaimer

This presentation outlines our general product direction and should not be relied on in making a purchase decision. This presentation is not subject to your license agreement or any other agreement with SAP. SAP has no obligation to pursue any course of business outlined in this presentation or to develop or release any functionality mentioned in this presentation. This presentation and SAP's strategy and possible future developments are subject to change and may be changed by SAP at any time for any reason without notice. This document is provided without a warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. SAP assumes no responsibility for errors or omissions in this document, except if such damages were caused by SAP intentionally or grossly negligent.
1. Key trends and issues
2. SAP solution overview
3. Summary and Roadmap Highlights
Operational Efficiencies Continue to Drive Cost Down

- Increased awareness on issues surrounding lack of data governance, quality and migration
- Strategic focus on application consolidation (move to reduced number or single instance)

Insight into corporate information is top of mind for CIOs

- Business intelligence recognized as top priority for most organizations
- Higher performing organizations leverage corporate information for competitive advantage

Increased M&A activities

- Recognize need for rapid data consolidation and data de-duplication
- 360 degree view of business activities across the enterprise essential for success
Results of Poorly Managed Data
Negative Impact on Businesses in All Industries

- “40% of orders blocked due to master data problems”. *EMEA High Tech*

- 90% of upper level management feel they don’t have the necessary information for critical business decisions; 56% of them are afraid they are making poor decision because of it. *Economist survey 2007*

- Higher performing companies are 50% more likely to use analytical information strategically. *Competing on Analytics, Thomas Davenport*

- Business intelligence is the *top technology priority* for CIOs for the last 4 years. *Meeting the Challenge: The 2009 CIO Agenda, January 2009, Gartner*

- Lost productivity is the *No.1* impact on companies that do not have adequate access to information. *Economist survey 2007*

- “Through 2010, Global 1000 enterprises will incur more costs, due to poor-quality data, than the benefits they will gain from implementations of customer relationship management, enterprise risk management and business intelligence applications.” *Key Issues for Data Management and Integration Initiatives 2009, Gartner*
The Information Problem Is Getting Worse
IT departments are drowning in complexity

- Non-compliant
- Expensive
- Inflexible
- Incomplete
- Out of context
Top issues

- How do I govern and manage data while reducing the costs and complexity of managing multiple data silos?

- How do I ensure information in enterprise applications is supporting agile operations, streamlined processes, and outstanding customer service?

- How do I empower business users to make better, faster decisions based on complete and accurate information?

- How do I implement and enforce policy based data management to ensure compliance and governance?
Added Value of SAP BusinessObjects Information Management for SAP Deployments

- Accelerate speed and reduce risk of a Business Suite, CRM or ERP implementation
- Protect against poor data harming process efficiency within the Business Suite
- Improving decision quality in your data warehouse
- Govern your master data enterprise-wide
1. Key trends and issues
2. SAP solution overview
3. Summary and Roadmap Highlights
Added Value of SAP BusinessObjects Information Management for SAP Customers

- Accelerate speed and reduce risk of a Business Suite, CRM or ERP implementation
- Protect against poor data harming process efficiency within the Business Suite
- Improving decision quality in your data warehouse
- Govern your master data enterprise-wide
Data Migration done by SAP gives You what You need: A Solution You can Trust.
Standardized and Proven Approach for Best Practice End-to-End Data Migration

We know SAP and we know how to get there.

SAP Data Migration Services consist of a framework, templates, methodology, tools and expertise to analyse, extract, clean, validate, upload and reconcile legacy data into a SAP ERP environment.

Built out of the unique expertise of two great companies: SAP and Business Objects.

SAP Data Migration Services provide a mature information management infrastructure and enables data governance best practices that live on after the project.

A Complete Offering for Data Migration
- Proven Expertise
- Standardized Approach
- Delivered by SAP
Added Value of SAP BusinessObjects
Information Management for SAP Customers

- Accelerate speed and reduce risk of a Business Suite, CRM or ERP implementation
- Protect against poor data harming process efficiency within the Business Suite
- Improving decision quality in your data warehouse
- Govern your master data enterprise-wide
# Added Value of Using Data Quality within SAP Business Suite

<table>
<thead>
<tr>
<th>Customers need to ensure high productivity for users working with the Business Suite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Quality provides error tolerant search for entity selection based on partial information during data maintenance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customers want to prevent bad data from entering their systems, at the source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Quality supports cleansing, enrichment and record matching during data entry on the Business Suite</td>
</tr>
<tr>
<td>Business rules are checked before records are committed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customers require ongoing and comprehensive cleansing of their data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Quality enables periodic cleanse, match and consolidate of the data in the Business Suite</td>
</tr>
<tr>
<td>Identify hidden, incomplete entries are and update all records with the most recent address information</td>
</tr>
</tbody>
</table>
Data Quality Management within SAP Business Suite provides *Immediate* Benefits

**Data Cleansing enhances productivity**
- Parsing corrects misfielded data – enables better matching – ensures standardization
- Entry is cased – no need to retype / correct
- Address reference data is regularly updated – for 234+ countries

**Suggestion lists and prompts**
- Interactive drill-down and prompts when conflicting possibilities exist during entry

**Duplicate checks and fuzzy matching ensure integrity**
- Prevent duplicates during data entry
- Fuzzy matching allows for variances in data entry
DQ Mgmt for SAP works with Entities Business Partner, Customer, and Vendor

Real time capabilities
- Cleanse and correct data for more than 234 countries upon initial data capture
- Suggestion lists prompt the user through interactive drill-down and searching
- Real-time phonetic matching prevents duplicates from entering the system
- Add-On Options
  - Delivery Point Validation (DPV) which verifies an address is deliverable
  - *new* GeoCodes (Latitude, Longitude) returned for the address

Batch processing
- Automates data cleansing within SAP through “Quarterly Adjustment Reports”
  - Periodically refresh existing accounts’ address data
- Identify potential duplicates as a back-office process via Batch Matching report
  - Duplicate candidates can be reviewed via SAP’s Data Cleansing Case routines.
  - A Cleansing Case is SAP’s consolidation feature.
Where does Data Quality Management live within the Business Process?

Prevent bad data from entering the business process across SAP and non-SAP

- **SAP CRM 2007**
  - *New Web Clients*: Real-Time Data Entry
    - Interaction Center Web Client
    - CRM Web Client
  - SAP GUI: Back-Office Batch Processing

- **SAP ECC 6**
  - SAP GUI: Real-Time and Batch Processing

- **SAP CRM 5, ECC 5, R/3 4.7**
  - SAP GUI: Real-Time and Batch Processing

- **Non-SAP Systems**: Siebel, Peoplesoft, …
Why do Customers purchase Data Quality Management for SAP Solutions?

DQ Mgmt for SAP provides a prepackaged native integration of data quality best practices within the SAP environment

- Enforces data discipline directly within SAP CRM or ERP systems
  - No extracts for external processing required
- Virtually undetectable presence that provides:
  - Global address correction and standardization
  - Comprehensive duplicate detection
  - Convenient record searching

Faster time to ROI
Delivers proven results

- Automatic cleansing and matching increases efficiency and ensures there is consistency across the enterprise. A single accurate 360° view of each customer, vendor, or business partner supports all business processes.
Planned Integration Roadmap–SAP BusinessObjects
Data Quality & SAP Business Suite

Today
- Certified Integration based on Business Address Services (BAS)
  - Set of functions that enable highly efficient address management within core SAP functions
- Certified Integration for Postal Validation based on BAS (BC-BAS-PV)
  - Global postal validation for 234+ countries
  - Suggestion Lists help validate ambiguous addresses
- Certified Integration for Duplicate Check, Error Tolerant Search based on BAS (BC-BAS-DES)
  - Scans SAP database for potential duplicate records
  - Fuzzy searching allows users to find data with partial information

2H09
- Certified supports for SAP versions:
  - CRM 7.0, CRM 2007, CRM 5.0
  - ECC 6, ECC 5, R/3 4.7
- Integrates with Data Services XI 3.1 SP1
- All Windows and Unix OS supported by Data Services XI 3.1 SP1

2010
- Extend Matching in CRM 7.0 Enhancement Pack 1, to use broader set of attributes
- Integrates with Data Services XI 3.2

NOTE: This slide outlines SAP’s general product direction and should not be relied on in making a purchase decision. This information is subject to change (and may be changed by SAP at any time for any reason without notice) and is not subject to your license agreement or any other agreement with SAP.
## Added Value of SAP BusinessObjects Information Management for SAP Customers

<table>
<thead>
<tr>
<th>Accelerate speed and reduce risk of a Business Suite, CRM or ERP implementation</th>
<th>Protect against poor data harming process efficiency within the Business Suite</th>
<th>Improving decision quality in your data warehouse</th>
<th>Govern your master data enterprise-wide</th>
</tr>
</thead>
</table>

© SAP 2009 / Page 20
SAP NetWeaver Business Intelligence
Trusted Data Foundation for a Reliable Information Management Strategy

- Rely on a trusted data foundation to ensure an integrated, consistent view of your enterprise data

- Provides a rich set of pre-packaged, application neutral business content tailored for all industries

- Enables companies to leverage their IT assets providing significant return on business intelligence investments

- Help decision makers model business critical scenarios to identify optimal strategies for best performance
### Added Value of Data Services and Data Federator with SAP NetWeaver Business Warehouse

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Benefit</th>
</tr>
</thead>
</table>
| Customers require scalable and flexible access to NW BW                    | - High performance SQL-based interface to enable enterprise reporting for Line of Business  
|                                                                             | - Agile multi-source reporting against NW BW and other sources          |
| Customers strive for efficient integration of all data into NW BW           | - Code-free creation of source system extract files to load BW           
|                                                                             | - Powerful validations and transforms across SAP and non-SAP sources, structured and unstructured  
|                                                                             | - High productivity based on one design environment                     |
| Customers need to trust the information stored in their SAP NetWeaver BW    | - Data and metadata transparency through lineage and impact analysis     
|                                                                             | - Validation of SAP and non-SAP sources against business-driven data quality rules |
| Customers require Business Content for Line of Business and the Enterprise  | - Pre-defined, scalable analytical models from data mart to enterprise data warehouse |
Agile Reporting on top of NetWeaver Business Warehouse

Relational Universe on NetWeaver BW - based on Data Federator
- Optimized for reporting
- Agile multi-source reporting, based on true federation technology
- Core set of analytical features
- Easy to understand and use, addressing the needs of the line of business
- Based on relational metaphors
- Scale to large data volume
Efficient data integration for SAP NetWeaver BW with SAP BusinessObjects Data Services

BusinessObjects Data Services is the market-leading* single platform for enterprise-class data integration and data quality

Enhanced integration into SAP NetWeaver BW
- Easier configuration and operation of Data Services to load SAP NetWeaver BW
- Launch SAP NetWeaver BW jobs directly through Data Services
- Use Data Services to easily distribute data out of SAP NetWeaver BW using Open Hub Service

Native loading of SAP NW BW 7.X data sources planned for H2 2009

*Source: SAP Business Objects Positioned as Market Leader in 2008 Gartner Magic Quadrant for Data Integration and Data Quality

NOTE: This slide outlines SAP’s general product direction and should not be relied on in making a purchase decision. This information is subject to change (and may be changed by SAP at any time for any reason without notice) and is not subject to your license agreement or any other agreement with SAP.
Supporting all data sources

- Use Data Services for loading SAP and non-SAP data into SAP NetWeaver BW
  - Ability to load SAP Business suite data via the standard extractors not available today, planned for H1 2010
- One platform for all data providing end-to-end data services
  - Leverage Data Quality capabilities for profiling, cleansing, and enriching any data
  - Enrich SAP Business Content and streamline data loading process
  - Replace data integration point solutions and consolidate to one platform

NOTE: This slide outlines SAP’s general product direction and should not be relied on in making a purchase decision. This information is subject to change (and may be changed by SAP at any time for any reason without notice) and is not subject to your license agreement or any other agreement with SAP.
Trusted SAP NetWeaver BW deployment

Consolidate, Integrate, Audit and Trust Your Metadata

- Planned integration between SAP BusinessObjects Metadata Management and SAP NetWeaver BW
  - End-user access to data lineage information for trusted SAP NetWeaver BW deployment
  - Change impact analysis between SAP NetWeaver BW objects such as DataStore Objects, InfoSets, BEx Queries, and InfoCubes
  - End-to-end capabilities for all data sources through Data Services
- Estimated availability in H2 2009

NOTE: This slide outlines SAP’s general product direction and should not be relied on in making a purchase decision. This information is subject to change (and may be changed by SAP at any time for any reason without notice) and is not subject to your license agreement or any other agreement with SAP.
Scalable Models – From Line of Business to Enterprise
Rapid Marts and NW BW Business Content

Rapid Marts and NW BW Business Content provide a scalable model that supports evolving customer maturity – From Single Marts for Line of Business to Enterprise Data Warehouse

**Single Rapid Mart**
One rapid mart materialized in BI Accelerator (or RDBMS)

Customer value
- Fast time to value
- Low implementation risk

**Multiple Rapid Marts**
Customer creates incremental value from multiple, integrated marts.

Customer value
- Fast time to value
- Low implementation risk
- Synergies from marts

**Data Warehouse and Marts**
Customer establishes a corporate memory using SAP business content

Customer value
- Low implementation risk
- Industry best practice
Planned Integration Roadmap—SAP BusinessObjects Information Management and NW BW

**Data Services**
- Certified integration with BW since 2002
- Market leading data quality
- Exchange of meta data
- Emulation feature allows new BI 7.0 data flow based on Data Services 3.x
- Administration and monitoring of the data flow possible

**Metadata Manager**
- Integration through NW BW and BOBJ Data Services metadata interchange
- Optimized native interfaces between NW BW and BOBJ Metadata Manager

**Today**

**2009**
- Enhanced handshaking for configuration and error handling
- Integration with SAP NetWeaver BW Open Hub Service

**2010+**
- Integration into all SAP and non-SAP dataflows of SAP NetWeaver BW
- Tight embedding with common modeling, administration and monitoring (beyond)
- High performance loading into BW (bulk loading)

**NOTE:** This slide outlines SAP’s general product direction and should not be relied on in making a purchase decision. This information is subject to change (and may be changed by SAP at any time for any reason without notice) and is not subject to your license agreement or any other agreement with SAP.
Added Value of SAP BusinessObjects
Information Management for SAP Customers

- Accelerate speed and reduce risk of a Business Suite, CRM or ERP implementation
- Protect against poor data harming process efficiency within the Business Suite
- Improving decision quality in your data warehouse
- Govern your master data enterprise-wide
Master data is data about your customers, products, suppliers etc.

Trading partner data introduces yet another version of data.

Inaccurate data leads to $30+ billion cost on supply chains.
SAP NetWeaver Master Data Management
Consolidate and Centrally Manage Master Data Across Enterprise

- Manage all key master data on a single platform using flexible data modeling
- Support consolidation, harmonization, central management
- Take advantage in pre-packaged IT and business usage scenarios
- Compose cross-application processes in SOA with consistent master data
- Pre-integrated with industry leading data integration and data quality tools from Business Objects
- Use SAP Services for Master Data Management for faster implementation
- 850+ customers
## Added Value of Data Services with SAP NetWeaver MDM

| Customers want an efficient, reusable mechanism to load pristine data into MDM | Data Services enables cleansing, matching & consolidation for initial and delta loads to MDM  
| Data Services supports rule-based auto-merge and survivorship |

| Customers want to prevent duplicate entries from entering their systems, at the source | Data Services provides data cleansing and matching services for data maintenance on MDM  
| Business rules are checked within Portal iViews before records are committed |

| Customers recognize that a periodic comprehensive cleanse of their data may be necessary, to catch hidden incomplete entries and to update all with the most recent address information | Data Services supports periodic cleanse, match and consolidate of the MDM repository  
| Export, process and re-import the MDM repository via the enrichment adapter |
Customer Example: Initial Load and Migration Process Design

Business Objects Data Services (Automated data flow)

1. Name Cleansing
   - Name / Firm / Title Cleansing
   - Name Standardization
   - Firm Reference Dictionary
   - Country-specific Cleansing

2. Address Cleansing
   - Address Cleansing
   - Address Enrichment
   - Address Standardization
   - "Out-of-the-box“ Quality Reporting

3. De-Duplication Auto Consolidation
   - Fuzzy Matching Logic
   - Matching against MDM
   - Automerge Functionality
   - Match Group Assignment

SAP NW MDM

Manual Consolidation

Post Processing

Key Mapping

MDM DB

Lookups against MDM repository

SAP BusinessObjects
Customer Example: Central Master Data Maintenance Process Design

Enterprise Portal

Fill in Request

Check Duplicates

Approve

Business Objects Data Services

Name Cleansing WebService

Address Cleansing WebService

Duplicate Check WebService

SAP NetWeaver MDM

MDM

Reuse of Scenario I Functionality:
- Firm / Name / Title Cleanse
- Address Dictionaries
- Matching Criteria

Lookups against MDM repository
Business Objects DS and SAP NW MDM
The Power of our Combined Product Offering

**Business Objects Data Services Platform**
- Powerful Extract, Transform and Load
- Data /Database Connectivity
- Extensive Data Cleansing
- Universal Data Cleanse (UDC)
- Directories and Dictionaries for Validations
- User-Defined Business Rules for Matching (w/ Wizards)
- Metadata Management – Lineage and Impact Analysis

**SAP NetWeaver Master Data Management**
- Fast and Flexible Object Store
- Powerful Rich Clients for Data Maintenance and Authoring
- Role-based and Web-enabled User Interfaces
- Workflow & Governance
- Validations & Assignments
- De-duplication & Key Mapping
- Management of Rich Content and Cross-Media Publishing (incl. Print)
- Search and Catalog Engine
Comprehensive approach to deliver end-to-end Master Data Management and Governance

- **Decision Quality**
- **Governance Quality**

**Data Quality Drivers**

**Analytical Use Case**
- Integration with BI solutions

**SAP MDM Today**
- Generic Infrastructure covering Operational Use case

**Master Data Governance**
- Purpose built MDM applications

**Integration Drivers**

**Data Integration**
- **Process Integration**

© SAP 2009 / Page 36
### Planned Integration Roadmap–SAP BusinessObjects Information Management and NW MDM

<table>
<thead>
<tr>
<th>Year</th>
<th>Features</th>
</tr>
</thead>
</table>
| **Today** | - Best practices & tool support for efficient connectivity  
           - Call of Data Services for cleansing, matching & consolidation in custom iViews for MDM Data Maintenance  
           - Data Services for SAP and non-SAP feeds, and cleansing, matching & consolidation during load to MDM via Import Manager  
           - Certified Integration with MDM enrichment controller – data cleansing and postal address validation & correction |
| **2009**  | - Cross-repository integration via Data Federator  
           - Profiling of NetWeaver MDM repository  
           - Data Services for SAP and non-SAP feeds, and cleansing, matching & consolidation during load to MDM via Web Services Interface  
           - Master data governance processes supported with workflow engine, leveraging Data Services for cleansing, matching & consolidation |
| **2010+** | - Combined Master Data Infrastructure based on tight integration of MDM and Data Services  
           - Data lineage and impact analysis on MDM |

---

**NOTE:** This slide outlines SAP’s general product direction and should not be relied on in making a purchase decision. This information is subject to change (and may be changed by SAP at any time for any reason without notice) and is not subject to your license agreement or any other agreement with SAP.
1. Key trends and issues
2. SAP solution overview
3. **Summary and Roadmap Highlights**
Building a Roadmap for Enterprise Data Management is Key for Success

1. Data READINESS
   Understand what data assets you have and how they are being used

2. Data INTEGRATION
   Deliver trusted information repeatable and reliably at the right form, to the right place at the right time

3. Data CONSOLIDATION
   Consolidate diverse master data landscapes and increase trust and reliability in information

4. Data GOVERNANCE
   Technology enabling people to implement a repeatable process to manage the use, quality and lifecycle of information

People & Process Maturity

Value
Building a Roadmap for Enterprise Data Management is Key for Success

1. Data READINESS
   - Understand what data assets you have and how they are being used
   - Data Profiling & Metadata Management

2. Data INTEGRATION
   - Deliver trusted information repeatable and reliably at the right form, to the right place at the right time
   - Data Migration & Integration
   - Data Profiling & Metadata Management

3. Data CONSOLIDATION
   - Consolidate diverse master data landscapes and increase trust and reliability in information
   - Master Data Management
   - Data Migration & Integration
   - Data Profiling & Metadata Management

4. Data GOVERNANCE
   - Technology enabling people to implement a repeatable process to manage the use, quality and lifecycle of information
   - Data Governance
   - Master Data Management
   - Data Migration & Integration
   - Data Profiling & Metadata Management
SAP BusinessObjects Information Management Solutions: Roadmap Highlights

**All Data**

Market-leading Data Integration and Data Quality offering.

Built into one platform.

Integrated with SAP Applications, BW, MDM and Business Objects BI.

**Trust**

**Business Acceleration**

**Governance**

**Data Source Expansion**

- Text Analysis, MSU

**Tight MDM, BW and Business Suite Integration**

- DS XI 3.2
- MM XI 3.1, DQ for Suite
- DS Aurora, DQ for Suite.

**DQ Expansion (Countries, Domains, Verticals)**

- Enh. Party Data
- Enh. Non-Party, DQ WB, FS

**Data Migration for LE & ME**

**Rapid Marts**

- SAP Rapid Marts
- Rapid Marts

**Information Control Center**

ICC

NOTE: This slide outlines SAP's general product direction and should not be relied on in making a purchase decision. This information is subject to change (and may be changed by SAP at any time for any reason without notice) and is not subject to your license agreement or any other agreement with SAP.
Thank you!
SAP BusinessObjects Information Management Solutions

Added Value for SAP deployments