In This Session ...

This session is intended for business process experts and technologists who are interested in data migration and need a deep-dive look at the tools provided by SAP for data migration projects. At the end of this session:

- You will understand SAP’s Data Migration Solution, including the key capabilities and when it should be leveraged
- You will gain insight into the SAP Best Practice migration content, including when and how to load the content into Data Services
- Get step-by-step instruction to get started with SAP BusinessObjects Data Services, such as how to leverage the pre-delivered migration content with customer data
1. Understanding SAP’s Data Migration Solution – what it is, how it works, when to use it
2. Deep-dive into the SAP Best Practice migration content
3. Step-by-step demo on using the migration content in Data Services
4. Top 10 recommendations for getting started on your first data migration project
5. Wrap-up
Reasons Companies Need Data Migration

Migration is relevant for companies who are:

- Acquiring or merging with other companies
- Expanding into new lines of business
- Initiating Green IT projects to reduce hardware and systems environmental and dollar costs
- Harmonizing data and processes across organizational boundaries
- Conducting a Global SAP rollout

Migration projects are relevant for all types companies, including those with SAP applications, non-SAP applications, upgrading, any company who needs to migrate data from one application to another.

Note: ILM stands for Information Lifecycle Management
MDM stands for Master Data Management
SAP Addresses the Challenges of Data Migration
Migration projects are tactical and challenging

GoLive with NO business disruption
- Poor quality master data unable to support core business processes

User Adoption
- Lack of quality data can make new system unusable
- Return on investment is at risk if implementation is delayed

No Surprises
- Surprises early in a project can be managed – surprises late in a project are a huge problem

Data Migration Cannot Delay GoLive
- Inability to track and manage the project can cause ‘surprises’ late in the project
SAP introduces an easy-to-use data migration solution to reduce project risks and speed implementation.

The solution includes:

- SAP BusinessObjects Data Services
  - Xcelsius and Webi dashboards
- SAP Best Practices for Data Migration
- Services provided by SAP and partners
Examples of When to Use SAP’s Data Migration Solution

- Implementing a new SAP application system, such as ERP or CRM
  - Example: Project to implement ECC 6.0 or CRM 7.0

- Adding new line of business that requires migration data to SAP
  - Example: Adding new plants to existing system, or adding new country to Financials

- Implementing new application within existing SAP ERP system
  - Example: Implementing Utilities Customer Relationship/Billing onto CRM
  - Example: Implementing materials management on existing ERP

✓ New application
✓ New LoB

Checklist
Examples of When to Use SAP’s Data Migration Solution (cont.)

- Reducing number of SAP systems as part of TCO or other Green IT project
  - Example: Moving from 20 to 4 SAP production systems globally and data must be migrated to the 4 systems

- Decommissioning non-SAP systems as part of TCO or other Green IT project
  - Example: After implementing a new SAP application, the previous system can be decommissioned

Checklist
- New application
- New LoB
- Lower TCO
- Green IT
What SAP Data Migration Is Not

- A tool to convert SAP to SAP
  - Example: You need to carve out a company code and all related data from one SAP system and move it to another SAP system
  - Example: You need to convert data directly in the productive database for example currency conversion, chart of accounts, legal compliance issues, while preserving the business context
  - Conversion of SAP to SAP is done by System Landscape Optimization
    - http://service.sap.com/slo *

* Requires login credentials to the SAP Service Marketplace
How SAP’s Data Migration Solution Works

1. Data is profiled and extracted from the source system.
2. Data is mapped to the target data structures.
3. Data is validated against the target business context.
4. Data is loaded into the target system.
5. Data is reconciled between the target system and the source system.
6. The entire process is done iteratively until the data is ready for load into the production target system.
SAP Best Practices for Data Migration Architecture

Legacy Data Environment
- Flat Files/Excel
- Databases
- Applications
- XML

Data Staging and Test Environment
- Staging Area
- SAP Business Objects
- Data Services Platform
- Name Parsing & Correction
- Address Parsing & Correction
- Material/Product Parsing Matching
- Transform
- Transform Data into SAP structure
- Validate & Load
- Business Validation Rules
- Automatic SAP Config Validation
- Pre-Built load routines for SAP Objects

Loading Environment
- Files
- IDocs
- SAP Configuration Extraction
- SAP

Target Environment
- Performance Analysis
- Dashboards and Business Reporting
- Transparency, Communication and Governance

Extract & Profile
- Collections
- Pre-Built load routines for SAP Objects
Major Components of SAP’s Data Migration Solution

Software components:

✓ SAP BusinessObjects Data Services: *Data management platform to support all migration tasks.*

✓ SAP BusinessObjects Data Insight: *Data profiling and assessment*

✓ SAP BusinessObjects Metadata Manager: *Data lineage and reconciliation of data from target to source*

✓ SAP BusinessObjects Enterprise: *Includes Xcelsius, Webi, Crystal for reporting.*

SAP Best Practice Migration Content components:

✓ Migration content loaded into *Data Services.*

✓ *Webi* reports for monitoring the data migration.

✓ Migration services on *BusinessObjects Enterprise* to map source data to SAP business context.

✓ Migration content for *reconciling* what was loaded in the target to the source.
Migrate Trusted Data Quickly and Efficiently

Key Features:

- **Easy Mapping** – Reusable
- **Database extraction** – to easily extract legacy systems
- **Reusable and sharable transforms and functions** (drag and drop) to minimize hand coding
- **Single interface** to design data structures and build transformation rules
- **Visualization of source to target metadata** to analyze data lineage and impact
- **Profile and analyze any source data**
- **Web-based administration** to manage job operations
- **Operational dashboards** to monitor job execution and trends

SAP BusinessObjects Data Services is the most productive and scalable data integration platform for extraction, transformation, and loading
SAP Data Migration in Your Architecture

Technical considerations:
- Data Services can connect to any source or target system via the adapter framework.
- Data Services resides in the orchestration and integration layer of your existing architecture.

Business considerations:
- Data Services can be reused after the data migration project:
  - Ongoing integration, for example, master data integration with multiple systems
  - Ongoing data quality, including on-entry quality check within the ERP and CRM applications.
  - Drive data governance project, especially as it relates to cleansing, quality, removing of duplicate data.

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SAP Best Practices Content for Data Migration
Migration content provided in Data Services

Key Features:

- **Predefined Migration Best Practices Content is loaded into Data Services**
  - Data validation content enables mapping of customer data to SAP data, including validation of key values. Content for ERP and CRM are included. Examples are:
    - Business partner content such as customer and vendor masters
    - Logistics content such as material master, bills of material, purchasing documents, sales documents
    - Financial content such as receivables, payables, cost elements
    - Sales content such as activities, leads, opportunities, contracts

- **Documentation**
  - Quick Guide on how to install the content.
  - Business Process Document for Data Migration is a process guide that provides a process flow and the sequence in which the objects need to be loaded, including specific instructions.
  - Extension Guide provides the information you need to extend and modify the content according to your specific needs.

- **In addition, Data Services delivers blueprints that serve as best practices for specific data quality and data integration scenarios.**
SAP Best Practices for Data Migration
Available objects in ERP

- Cost Element
- Characteristic
- Class
- Activity Type
- Activity Price
- Customer Master
- Vendor Master
- Material Master
- Material Master Classification
- Material Inspection Type
- Material Customer Replenishment
- Purchase Info Record
- Inspection Method
- Master Inspection Characteristics
- Inspection Plan
- BOM
- Routing
- SD Pricing
- Inventory Balances
- Accounts Payable / Receivable
- HCM – Best Practices Baseline
- Service master
- Equipment
- Organizational Management
- Standard hierarchy
- Profit centers
- Cost centers
- Exchange rates
- Object Dependency
- Sales Order
- Purchase Order
- Internal Order
- Source List
- Reference operation set
- Material stocks WM
- Planned independents requirements
- Open deliveries
- Contracts
- Scheduling agreements
- Open deliveries
- SD Pricing
- Inventory Balances
- Accounts Payable / Receivable

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SAP Best Practices for Data Migration

Available objects in CRM

- Business Partner - General / Sold-To (Customer)
- Business Partner - Contact Persons
- Business Partner - Competitors
- Business Partner - Employees
- Business Partner - Relationships
- Business Partner – Hierarchies
- Business Partner-Product Relationships - Material
- Target Groups
- Product - Material
- Product - Service
- Product - Individual Objects
- Installed Bases
- Pricing Conditions
- Sales Orders
- Service Orders
- Sales Contracts
- Service Contracts
- Leads
- Opportunities
- Quotations
- Complaints
- Financial Services
- Plant
- Prospect
- Channel Partner
- Consumer
- Enterprise Org. Structure
- Solutions
- Business Activities
- Financing Contracts
- Service Plans
- Pool Contracts
- Framework Agreements
- Product Service Letters
- Tasks
- Confirmations
- Exchange rates
- Price agreements (within contracts)
Planned content, not yet announced

- Bill Payment
- Budget Billing History
- Budget Billing Plan
- Business Partner – contact notes
- Connection object
- Contract
- Contract Account
- Credit Worthiness
- Device location
- Equipment
- FICA history
- Full Install

- Installation
- Location
- Meter Readings
- Move-in
- Notes
- Notification
- Open items
- Owner allocation
- Premise
- Promise to Pay
- Security deposit payment
- Security deposit request
- Street route
Example Report Content for Data Migration

### Material Master Summary

<table>
<thead>
<tr>
<th>Material</th>
<th>Number of Recs (Map)</th>
<th>Number of Recs (Valid)</th>
<th>Number of Recs (Invalid)</th>
<th>Number of Recs (Enriched)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Master Header</td>
<td>71</td>
<td>71</td>
<td>0</td>
<td>71</td>
</tr>
<tr>
<td>Material Master Basic</td>
<td>68</td>
<td>68</td>
<td>0</td>
<td>68</td>
</tr>
<tr>
<td>Material Master Plant</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Lookup configuration values in SAP for mapping source to target
Pre-Configured Migration Content to Support the Entire Data Migration Process

1. **Data extraction**: SAP BusinessObjects Data Services tool helps to connect to most known legacy systems to extract legacy data (master and transaction)
2. **Data mapping**: Data mapping and restructuring functionality supports all the major master data BusinessObjects required to configure SAP Business All-in-One as the target system
3. **Data validation**: Contains predefined content for business logic validation and data quality improvement. Dashboards to identify and visualize data errors early in the process.
4. **Data load**: Contains program to activate the IDOCs needed for the data migration process
5. **Reconcile data**: Right data to support the business process
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Step-by-Step to Get the Migration Content Loaded into Data Services

   a) Optionally review the overview presentation and watch the demo
   b) Select **Data Migration DVD**: This takes you to the location to download the content. Note: The newest version has a silent installer that will install both Data Services and the migration content.

2. After the content is downloaded, go to **online help**.
   b) Online help provides quick guides for ERP and CRM. They will walk you through manually loading the migration content into Data Services.

**Tip**

If you are new to Data Services and the migration content, allocate approximately 4 to 8 hours for installation on a sandbox server.
Once the migration content is loaded into Data Services, the project AIO_BPFDM_IDOC exists. Notice there are jobs for each object supported, for example material master and customer master.
The migration content includes word documents explaining each IDOC, as well as spreadsheets to for mapping the legacy customer data to the SAP IDOC structure.
The customer master job in Data Services has workflows for each IDOC segment. As you drill into the jobs, you can see the mapping and validation steps that exist. The validation steps use the “Migration Services” tool provided by SAP Best Practices.
4 The source country key is mapped to the target country key.
Migration Services is a tool delivered by SAP Best Practices that does two things:

1. Read the IMG configuration data from the SAP system
2. Enables mapping of source values to SAP configuration values

In this example U.S.A., US, and Vereinigte Staaten von Amerika in the source system should map to US in the target system.
DEMO: Data migration in 5 minutes
Agenda

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Top 10 Recommendations

1. Profile profile profile!… Know your data – the source and what is required to get to the target.

2. Create templates of data to understand downstream testing and data impact on business processes.

3. Create a specific team that is involved in entire process, then bring in experts for each application area. Ensure a core team is involved throughout the entire migration project.

4. Ensure right functional experts are involved. For example, involve purchasing experts when migrating PO’s to understand downstream impact if you choose not to migrate closed purchase orders.

5. Migration projects normally require some consulting/services. Ensure you use SAP or a partner with experience in Data Services and the SAP Best Practices migration content.
6. In addition to the software, SAP provides a methodology for Data Migration within ASAP. Use this methodology to guide you through the first project.

7. If you have extended the SAP structures, you need to extend the IDOC and the content. The documentation on the SAP Best Practices includes an extension guide to extending the IDOCs and the jobs in Data Services for your additional fields.

8. If you have created Z-tables and you need data migrated to these tables, the SAP Best Practices team has detailed information on how to do this in the guide. Within the next year, SAP Best Practices will provide a tool to do this automatically.

9. The migration content does not include quality work such as checking for duplicates, cleansing addresses. Include duplicate checks on key objects.

10. Use data migration project to put emphasis on data management and data as strategy building block for the business processes. Get the business owners to also own the data.
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Resources

- Data Migration on service marketplace
  - [http://service.sap.com/bp-datamigration](http://service.sap.com/bp-datamigration) * - download all migration content; requires login credentials

- Blogs on data migration

- Data Services on SDN
  - [www.sdn.sap.com/irj/sdn/im](www.sdn.sap.com/irj/sdn/im)

* Requires login credentials to the SAP Service Marketplace
7 Key Points to Take Home

- SAP’s Data Migration solution is a proven solution to migrate legacy data to SAP application systems.
- SAP’s Data Migration solution is based on SAP BusinessObjects Data Services, which is a major investment area for SAP.
- SAP’s Data Migration solution should be used when implementing new SAP systems, as well as when adding new lines of business, or having system consolidation/system decommissioning projects. SAP’s Information Lifecycle Management works with SAP Data Migration for the decommissioning of non-SAP application systems.
- SAP Best Practices migration content saves time and effort by providing migration content that enables you to map source to target data structures, as well as reports and dashboards that monitor the data migration jobs.
- Migration content can be downloaded from service.sap.com/bp-datamigration * and loaded into Data Services.
- Migration projects require iteration of data loads to better understand the data, as well as close collaboration between business and IT.
- For your data migration projects to be successful, you will need to invest time and effort to ensure the migration team and business stakeholders are aligned and ensure there are business owners for the data.

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Thank you!

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