



Building Tailored Master Data Applications that Leverage SAP NetWeaver Master Data Management

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Desafios dos dados mestre

SAP MDM

Serviços MDM

Conclusão

IT Practices – Data Unification

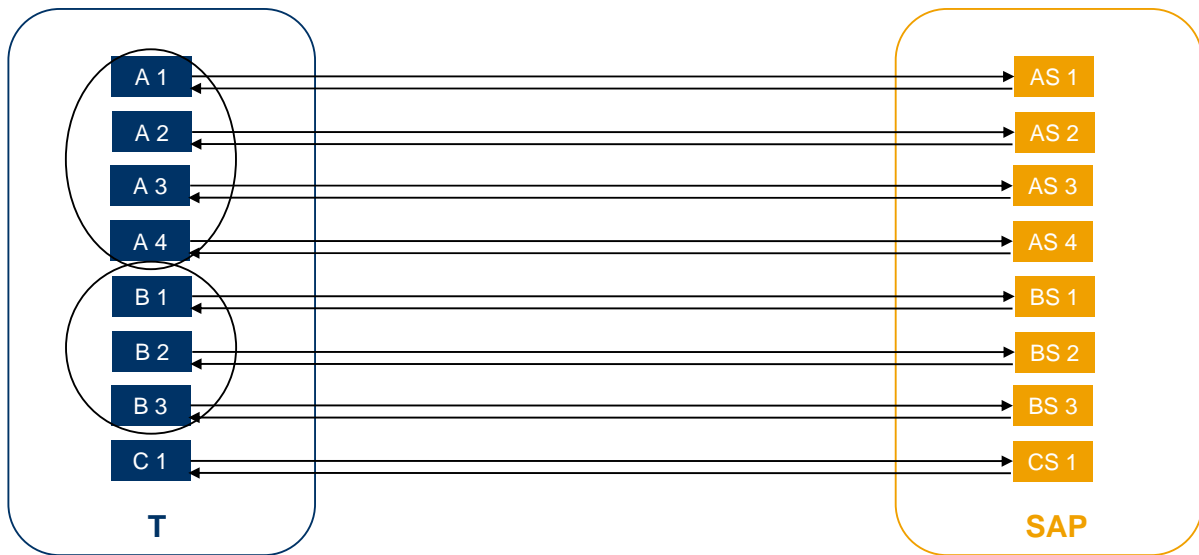
IT Practices

IT Scenarios

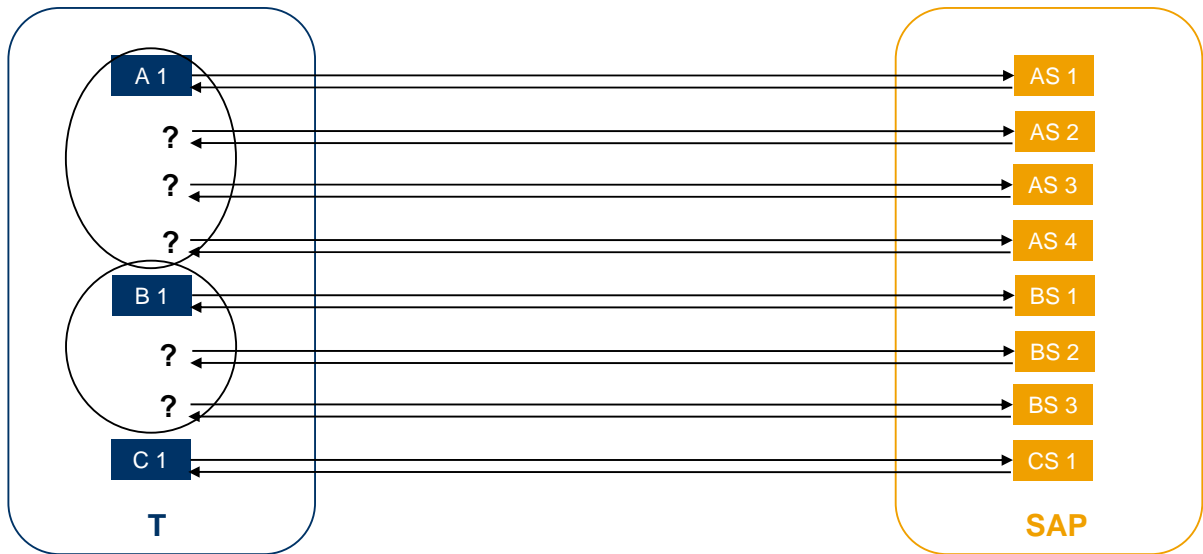
User Productivity Enablement	Running an Enterprise Portal	Enabling User Collaboration	Business Task Management	Mobilizing Business Processes	Enterprise Knowledge Management
Data Unification	Master-Data Harmonization	Master-Data Consolidation	Central Master-Data Management	Enterprise Data Warehousing	
Business Information Management	Enterprise Reporting, Query, and Analysis		Business Planning and Analytical Services	Enterprise Data Warehousing	
Business Event Management	Business Event Resolution			Business Task Management	
End-to-End Process Integration	Enabling Application-to-Application Processes	Enabling Business-to-Business Processes	Business Process Management	Enabling Platform Interoperability	Business Task Management
Custom Development	Developing, Configuring, and Adapting Applications			Enabling Platform Interoperability	
Unified Life-Cycle Management	Software Life-Cycle Management			SAP NetWeaver Operations	
Application Governance & Security	Authentication and Single Sign-On			Integrated User and Access Management	
Consolidation	Enabling Platform Interoperability	SAP NetWeaver Operations	Master-Data Consolidation	Enterprise Knowledge Management	
Enterprise SOA – Design & Deployment	Enabling Enterprise Services				

Quais são os desafios da gestão de dados mestre?

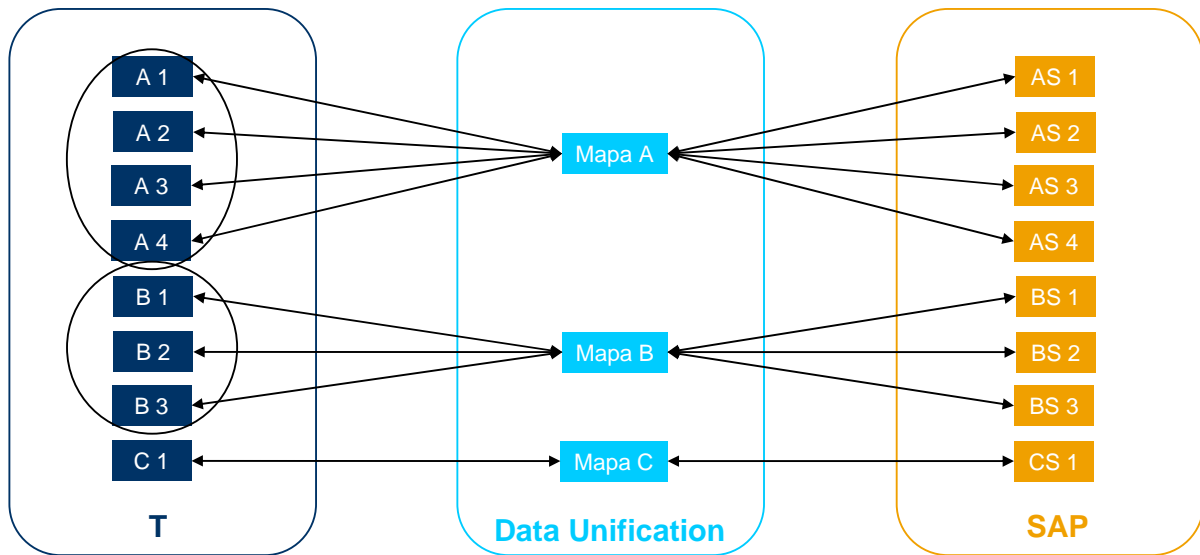
Processos com dados mestre consolidados



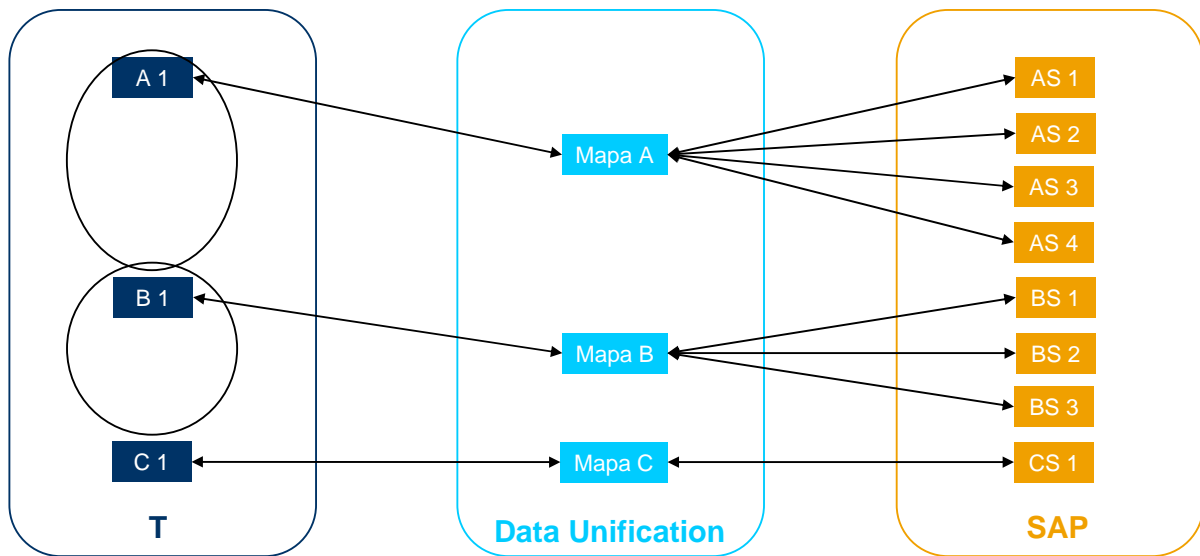
Processos com dados mestre consolidados

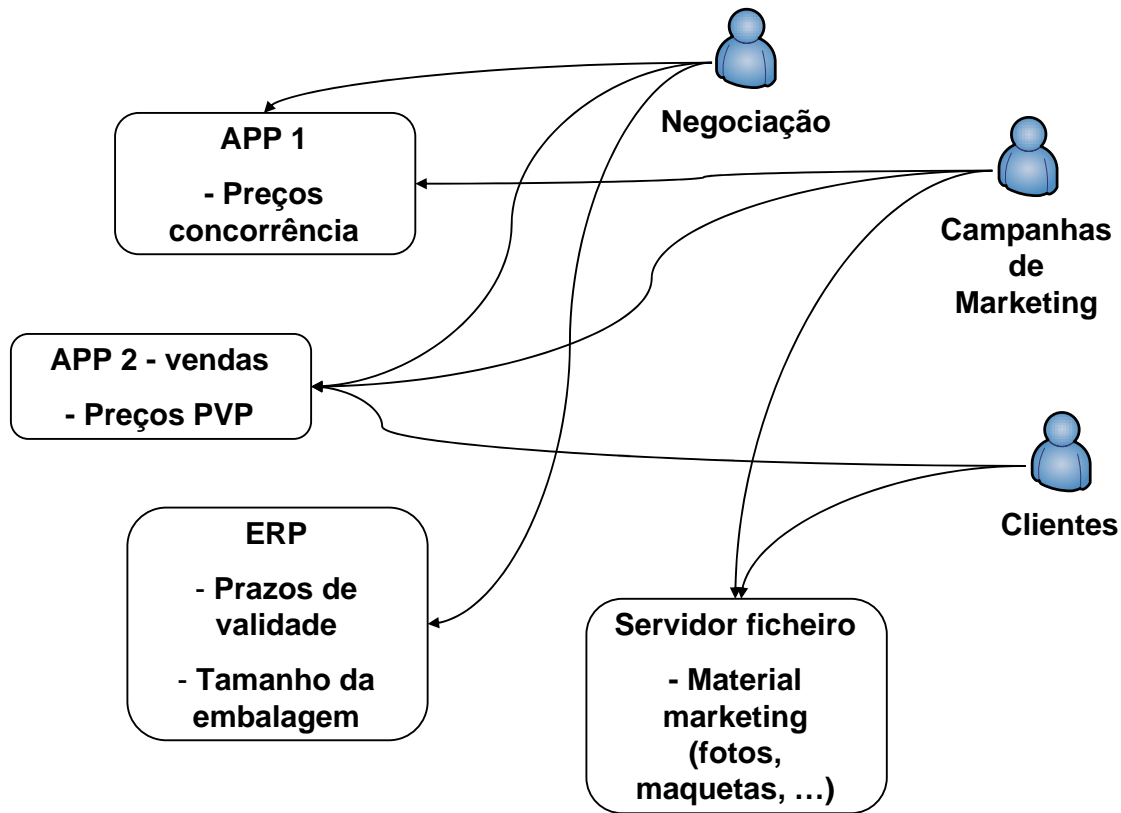


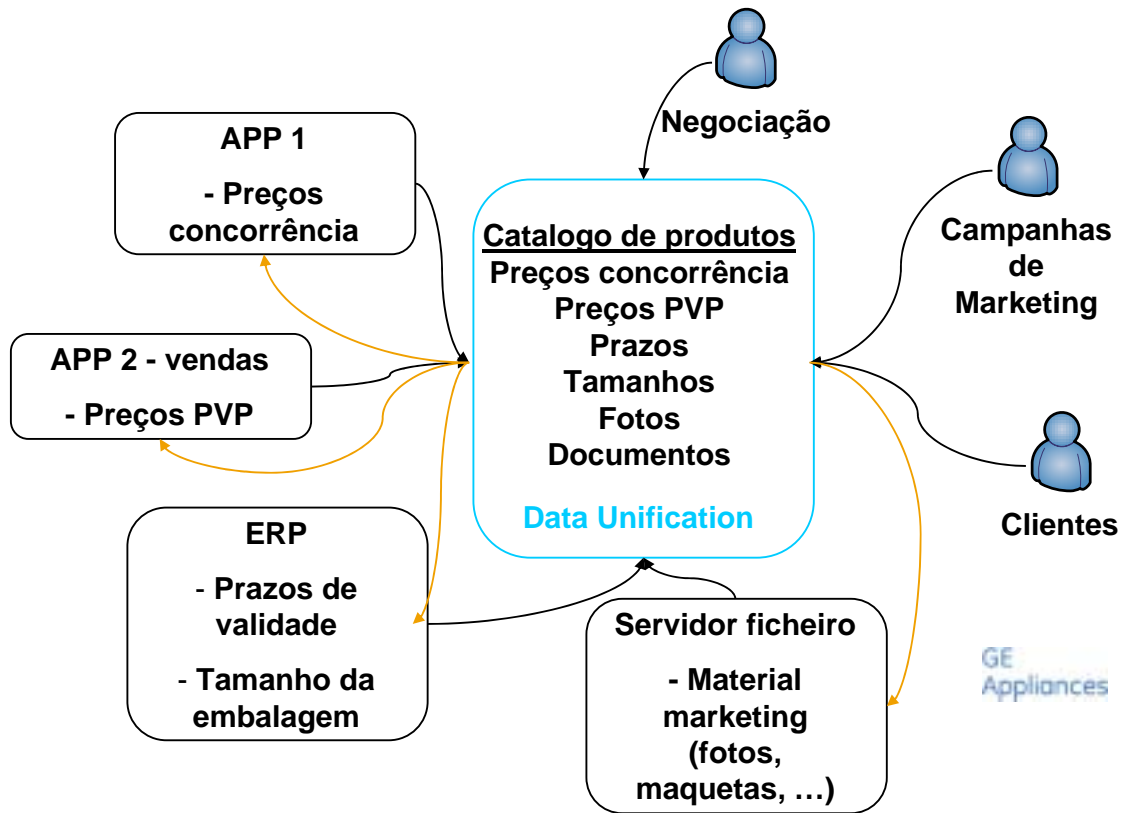
Processos com dados mestre consolidados



Processos com dados mestre consolidados







Objectivos

- Automatizar a criação de novos agentes

Requisitos

■ Workflow:

- preenchimento faseado,
- validações,
- aprovações,
- Alertas

- Replicação de informação para várias aplicações

Um problema que todas as empresas têm:

Os dados mestre descrevem as áreas chave da sua organização ...

- Clientes (Nome, morada, telefone, ...)
- Produtos (Atributos, lista de preços, ...)
- Fornecedores (morada, produtos fornecidos, ...)
- Empregados (id, nome, título, morada, posição, ...), etc.

Os dados mestre existem em vários sistemas que não comunicam entre si

O principal problema de ter dados inconsistentes, errados, desactualizados, incompletos é de conduzir a tomadas de decisão erradas

Sistema A

Prod #	Description	Category
A124K	Safety Boot	Footwear



Sistema B

Prod #	Description	Category
BR-2K	Safety Boot	Clothing



Será este o mesmo produto descrito de maneiras diferentes?



Desafios dos dados mestre

SAP MDM

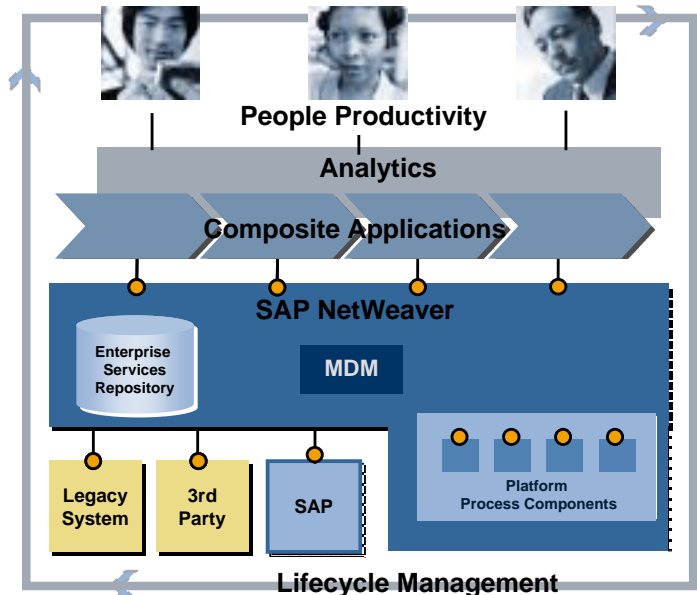
Serviços MDM

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THE STRATEGIC "BACKBONE" OF ENTERPRISE SOA

Foundation for Enterprise SOA

- MDM delivers an enterprise information foundation
- MDM enables flexibility and data reusability
- Business processes can leverage MDM to generate data models automatically
- Enterprise Web services can access MDM seamlessly
- SAP Analytics leverages MDM and Business Intelligence



"Without a Master Data Management (MDM) capability, we believe it will be challenging for any company to move to a services-oriented architecture."

JP MORGAN CHASE

UNIQUE FEATURES

Predefined and highly flexible object models

- Pre-defined object models for customer, product, employee and supplier
- Users can define their own model with a highly configurable schema
- Rich repository handles both simple and complicated data taxonomy and hierarchies

Content extraction and management

- Import and rationalize data from any source
- Comprehensive content and image management
- Electronic and print publishing

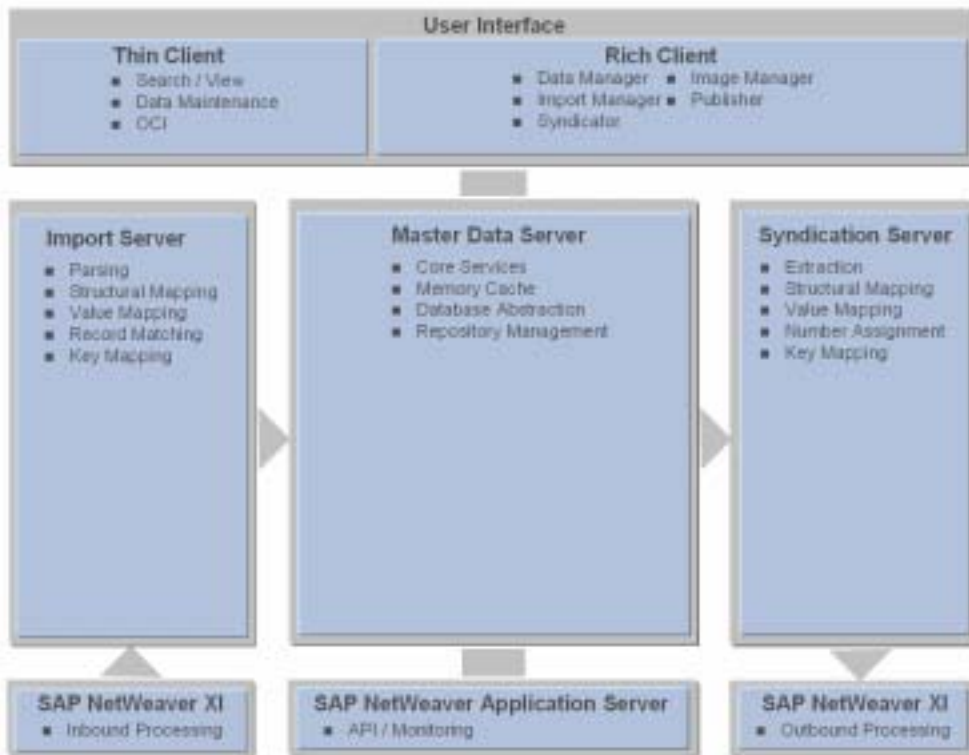
Unbeatable performance, scalability and flexibility

- Handles simple and complex data seamlessly
- Scales to millions of records
- High performance parametric search

Easy to install and deploy

- Easy installation and deployment within weeks
- Ease to use, minimal training required
- Multi-user collaboration

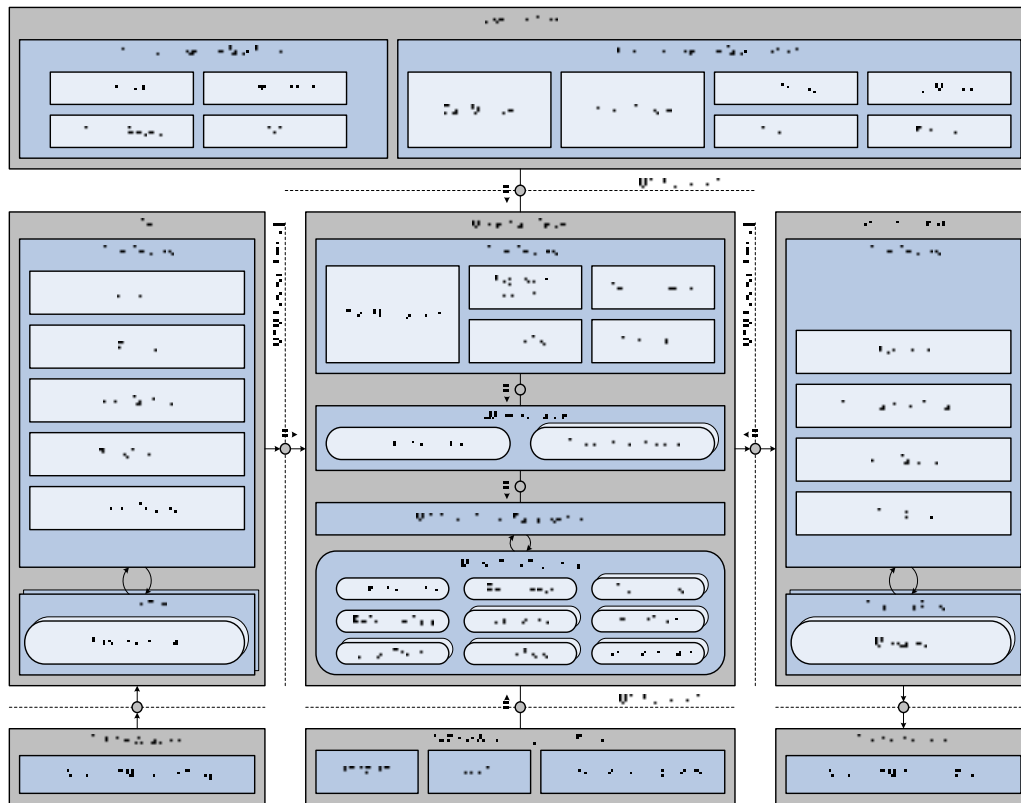
SAP NetWeaver MDM – Major Building Blocks



MDM can be integrated with virtually every type of SAP and non-SAP client system containing master data objects using SAP NetWeaver XI



SAP NetWeaver MDM – Block Diagram





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Key Capabilities

- Pure Java Implementation
- Communication over TCP/IP with MDM Server
- Comprehensive data management & MDM Repository administration
- Built-In connection pooling



The following Click Through shows how to

- Use the Login method of the CatalogData class to connect to the repository
- Perform searches on the main table and lookup tables by using ResultSetDefinition and ResultSet classes
- Retrieve data from an MDM repository and visualize the result in a Web Dynpro application

Overall you were shown the common parts of any Java application that makes use of the MDM Java API

Show how SAP MDM consolidates product data between mySAP PLM cFolders (Design Collaboration) and Manufacturing Systems



Performed Steps

- Connect to an MDM repository
- Create a search based on parameters
- Retrieve configuration parameters
- Get Key Mapping of records
- Visualization with Web Dynpro

Web Dynpro Example



Example Explained



SAP NetWeaver MDM Product Information

Products in SAP NetWeaver MDM (Please select a product for its details)

ID	Description
7071	Drive Unit (RX 30cc)
7070	Drive Unit (RX 40cc)
7072	Drive Unit (RX 5014)
7043	Prototype Drive Unit

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Product Details Key Mapping

ID *	7071	Old Mat No *	RX_123456_3014
Description *	Drive Unit (RX 30cc)	Material Group *	001
Material Type *	HALB	UNSPSC Category *	Robot drive units
		L / W / H Unit *	CMT
		Length *	190.0
		Width *	75.0
		Height *	110.0

Product Details Key Mapping

Key Mapping

Assign Material Number Show Details in Client System

Client System	Key
ORF	RX_3014
Legacy	SD12375

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What SAP NetWeaver MDM does today

- Provides alignment of master data for cross application business processes through **harmonization**
- Provides a platform for Enterprise Services by **synchronizing** master data across heterogeneous system landscape
- Provides **de-duplication** of master data objects across business systems
- Provides cross-linkage capabilities (**Key Mapping**) which can be utilized by Enterprise Services

Future contribution of SAP NetWeaver MDM to Enterprise SOA

- Provide SAP NetWeaver MDM core functionality as **services** that are an integral part of SAP Enterprise Services
 - SAP NetWeaver MDM provides utility services for **SAP Enterprise Services** like existence-check, duplicate check, de-duplication, value mapping, key mapping, etc.
- Provide central **hub** for all third party data interactions
 - SAP NetWeaver MDM **consolidates** third party data within an enterprise

Flexible object model generation

- **Data Models (repository schemes) can be created with a rich client user interface**
- **Administrative APIs are provided to generate/modify repository schemes**
- **Planned meta-model enhancements along the roadmap will allow to model deep structures, multiple main tables, etc.**
- **Object models from custom XSDs can be imported on a project basis**

Integration to Business Applications

- **Out-of-the-box content for SAP R/3 and mySAP ERP for simplified representations of customer, vendor, material and employee**
- **mySAP SRM, mySAP CRM integrations provided with SP04**
- **Legacy applications can be integrated via SAP NetWeaver XI**
- **Key Mapping can be exported and fed into SAP NetWeaver BI for consolidated reporting**

Services

- **Services can be built by utilizing a powerful set of Java and COM APIs, ABAP APIs first version available**
- **With SP04 a first set of Web Services will be provided e.g. Get Key Mapping, Get Details, etc.**
- **Integration with UKMS and Enterprise Search is under investigation**

Access Details of Master Data Objects

- **Query** **Search for objects matching given criteria**
- **Retrieve** **Get details of an object**

Use Cases

- **Check for existence of central master object before local creation**
- **Retrieve details and create local replicate**

Features

- **Single access point to multiple MDM repositories**
- **Generic data type ensuring independence of repository schema**
- **Support for all major field and attribute types**
- **Support for all major lookup fields
(flat, qualified flat, hierarchy, taxonomy)**

Preview MDM 5.5 SP4

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Access Unique Identifiers of Master Data Objects

- **GetKeyMapping** Retrieve keys of object in systems
- **AddKeyMapping** Add additional identifier for object

Use Cases

- **Client system registers local object as replicate of global object**
- **Key mapping during message exchange on SAP NetWeaver XI**

Features

- **Mass capability (multiple objects per request)**
- **Exposure of multiple MDM repositories via single access point**
- **Aligned with Enterprise SOA standards (support for SAP global data types)**
- **Optional filtering of results**

Preview MDM 5.5 SP4

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Serviços MDM

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SAP NetWeaver MDM

- ✓ **Aggregates master data across SAP and non-SAP systems into a centralized master data hub**
- ✓ **Ensures **high-quality master data** by distributing harmonized data that is globally relevant**
- ✓ **Scales to millions of records and provides high-performance parametric search with sub-second response time**
- ✓ **Integrates with major applications, runs on major databases and operating systems**
- ✓ **Choice of APIs for ABAP, Microsoft COM and Java protects investments in development knowledge and helps to reduce TCO**
- ✓ **Powerful and open APIs offering maximum flexibility to build highly tailored custom applications**
- ✓ **Platform independence and easy deployment through pure Java implementation of the Java API without any native OS libraries or DLLs**
- ✓ **MDM APIs integrate seamlessly into any existing communication infrastructure for MDM without need for additional connectivity components**



Questões?

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