

RDP103

SAP Data Services

The Data Integration Platform for all SAP Sources and SAP HANA

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Agenda

Data Services 4.2 New Features and Enhancements

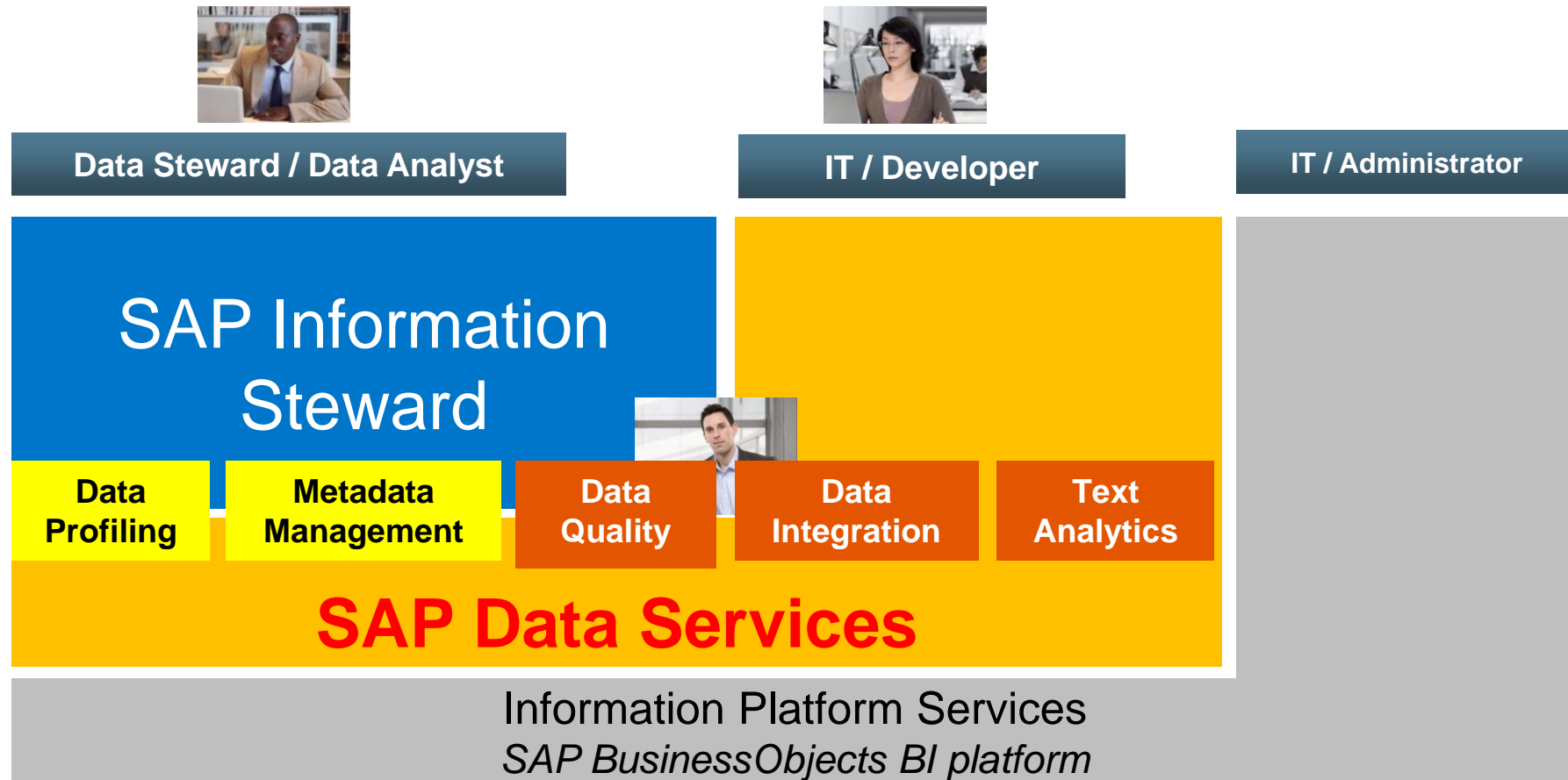
- Big Data
- Smart and Simple
- Information Governance
- Enterprise Ready

Release Schedule

Vision

SAP Provides Your One-Stop Solution

Data Integration, Data Quality, Text Analytics, and Information Stewardship



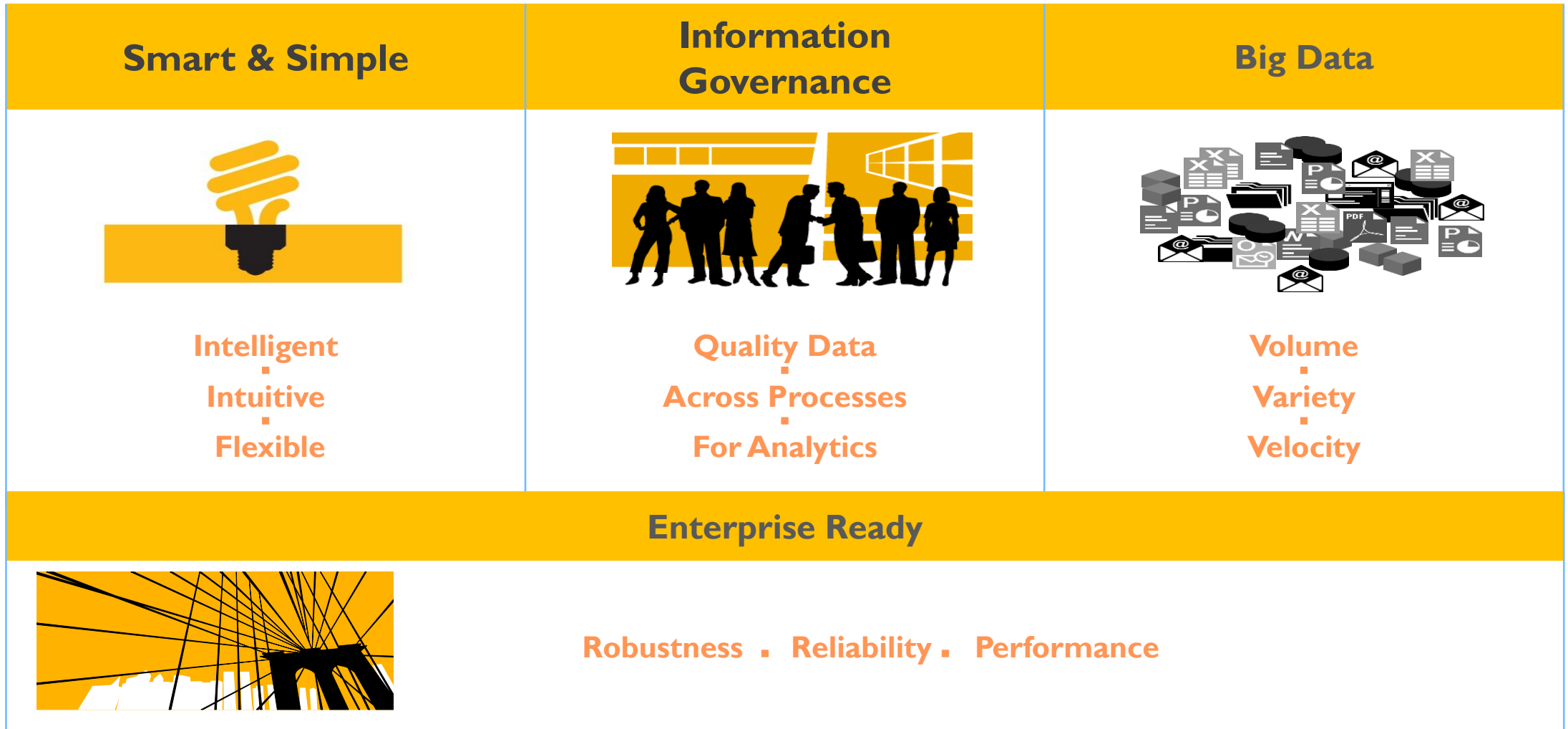


Data Services 4.2

New Features and Enhancements

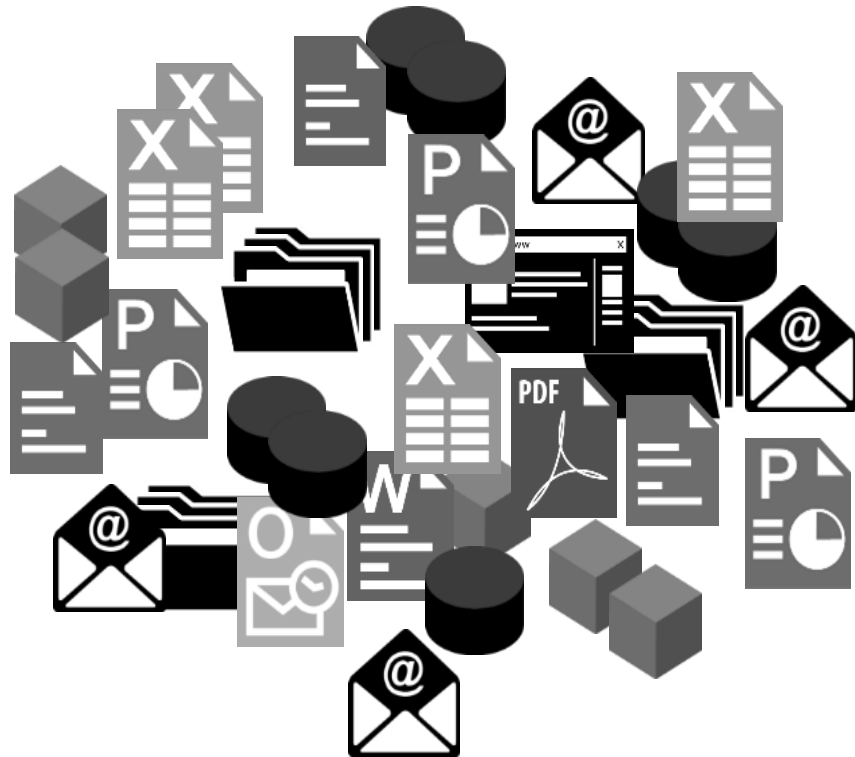
Information Management

Building on Themes Our Customers Care About Most



What's New In Big Data

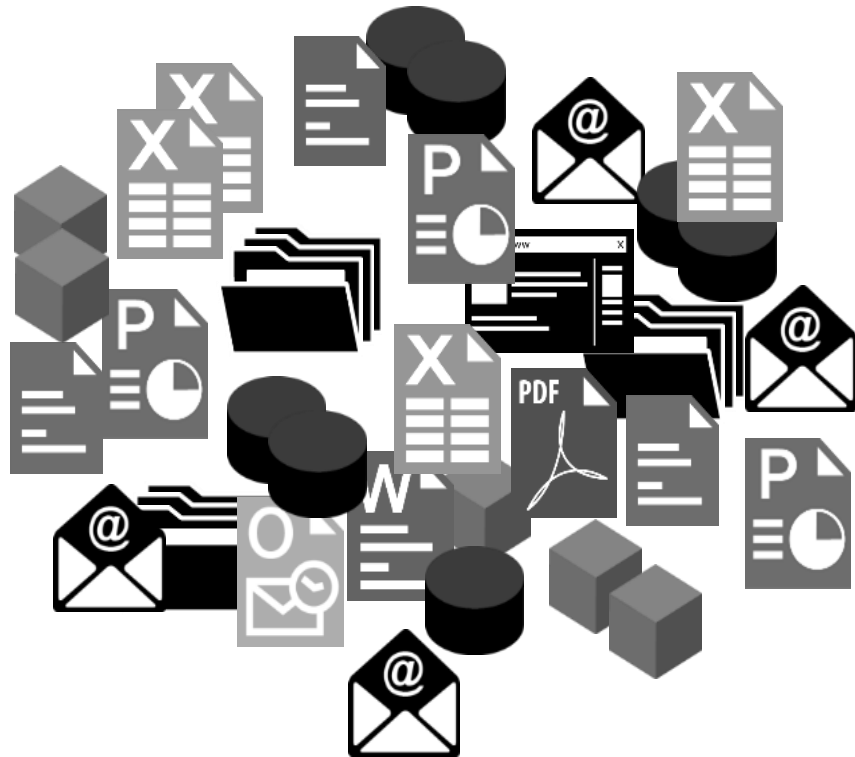
Unlock value from new data sources in real time



- **Real-time Data Provisioning**
- **Harness the Power of HANA**
- **Extensible Connectivity**

What's New In Big Data

Unlock value from new data sources in real time

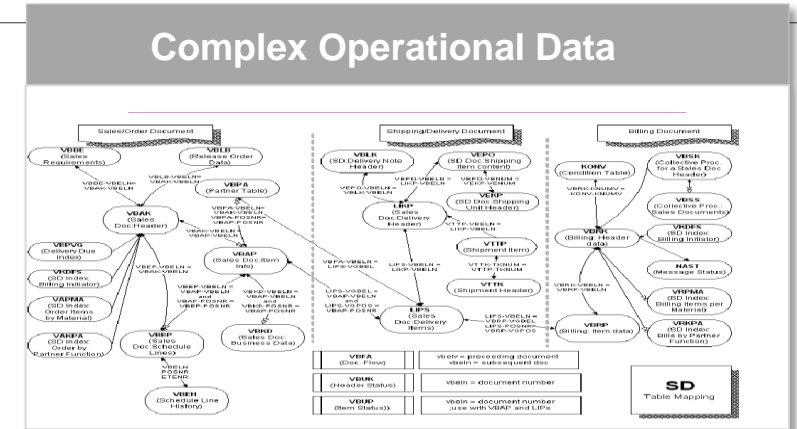


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- **Harness the Power of HANA**
- **Extensible Connectivity**

Real-time Data Provisioning

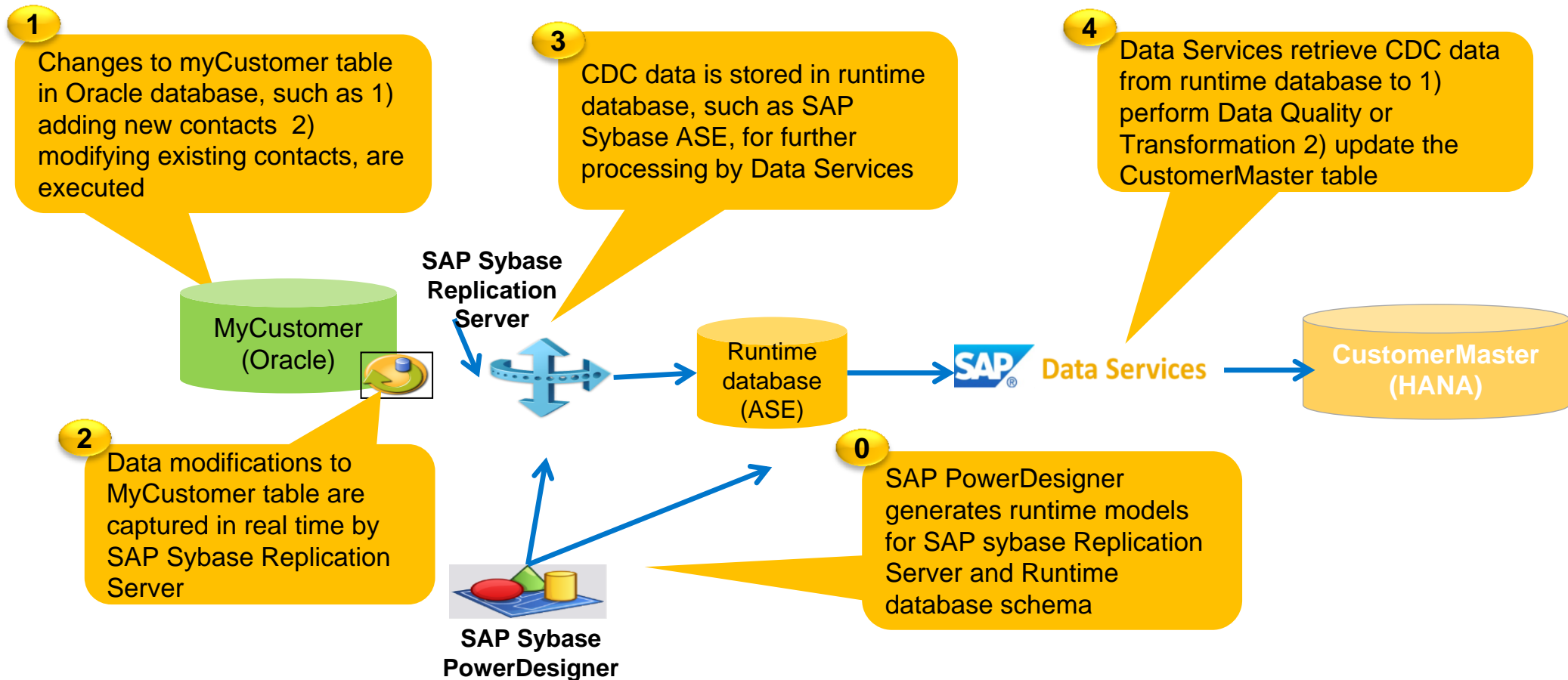
Single solution for real-time SAP ERP and non-SAP data replication (CDC)

- Brings together **SAP Sybase Replication Server, SAP LT Replication Server (SLT)***, and **Data Services**
- Include complex data transformation and data quality management in replication processes
- Turn raw operational data information into useful information for business users in real-time
- Complement real-time BI with a real-time solution for data provisioning



* Note: SAP SLT & DS integration is targeted for 4.2 SP1 release

RealTime CDC Use Case with Sybase Replication Server



2013 Integrated Solution with Data Services and Replication Server:

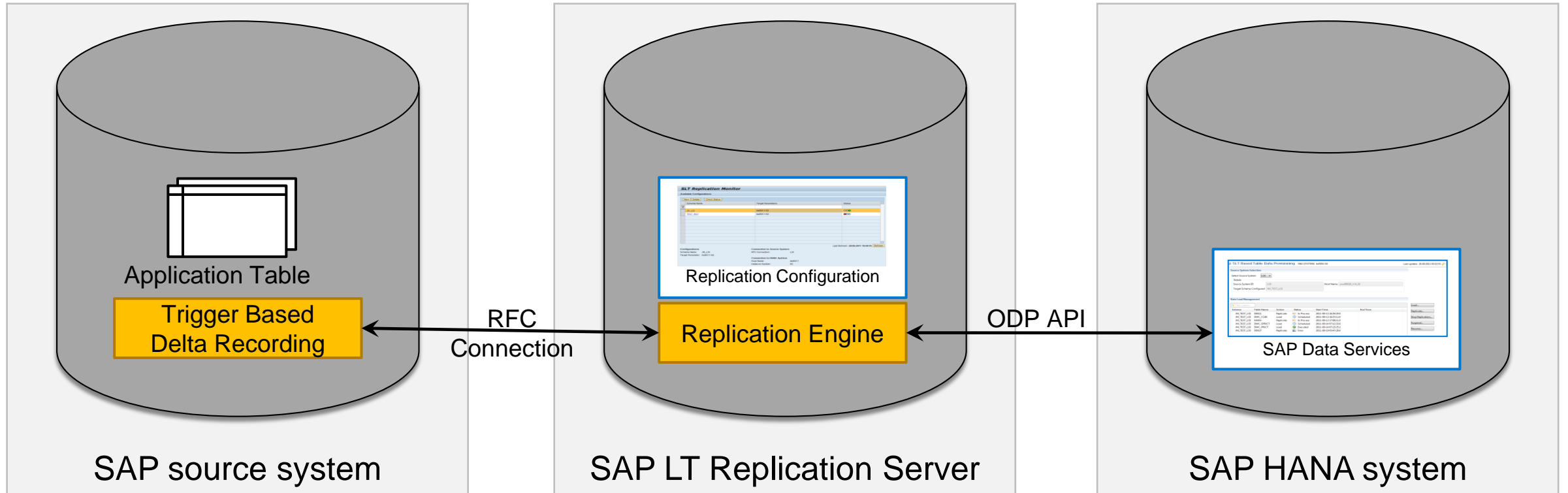
Software Components

- SAP Sybase PowerDesigner 16.5
- SAP Replication Server 15.7.1
- SAP Sybase ASE 15.7
- SAP Data Services 4.2

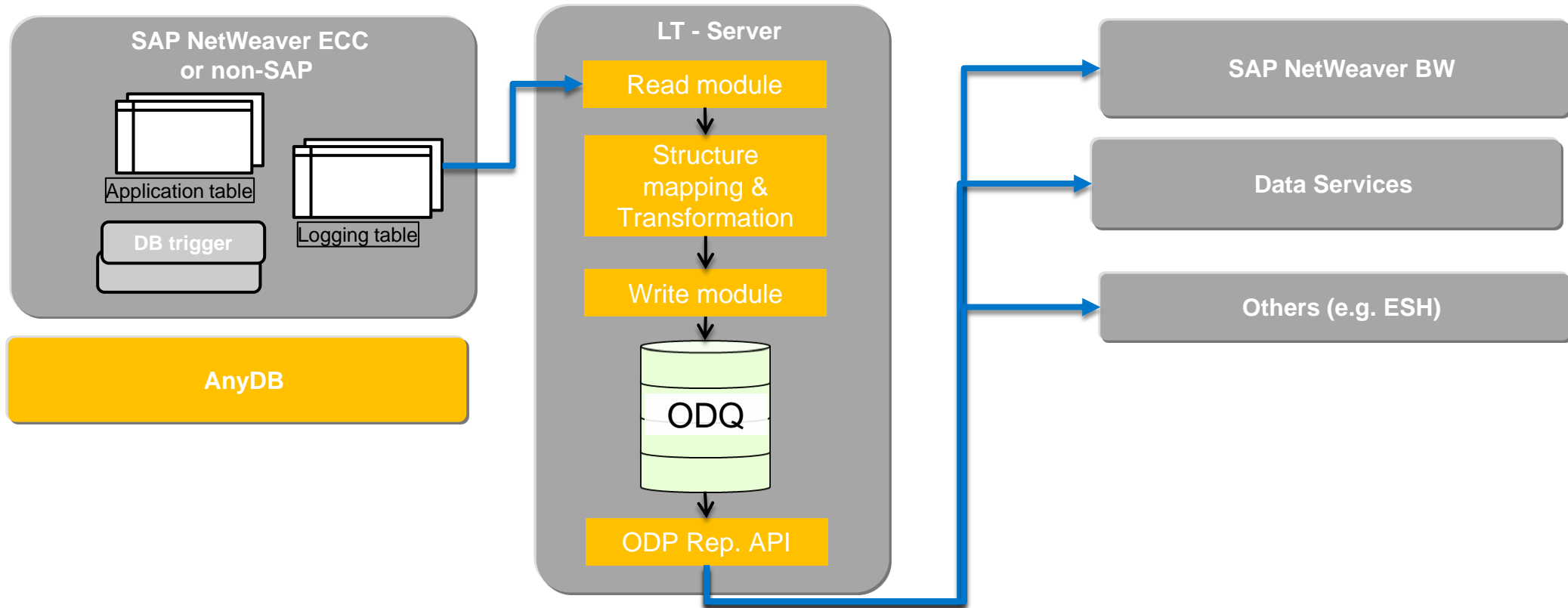
Source databases support

- Oracle
- SAP Sybase ASE
- DB2 (available in DS 4.2 SP1)

SAP LT Replication Server integration with SAP Data Services - Overview

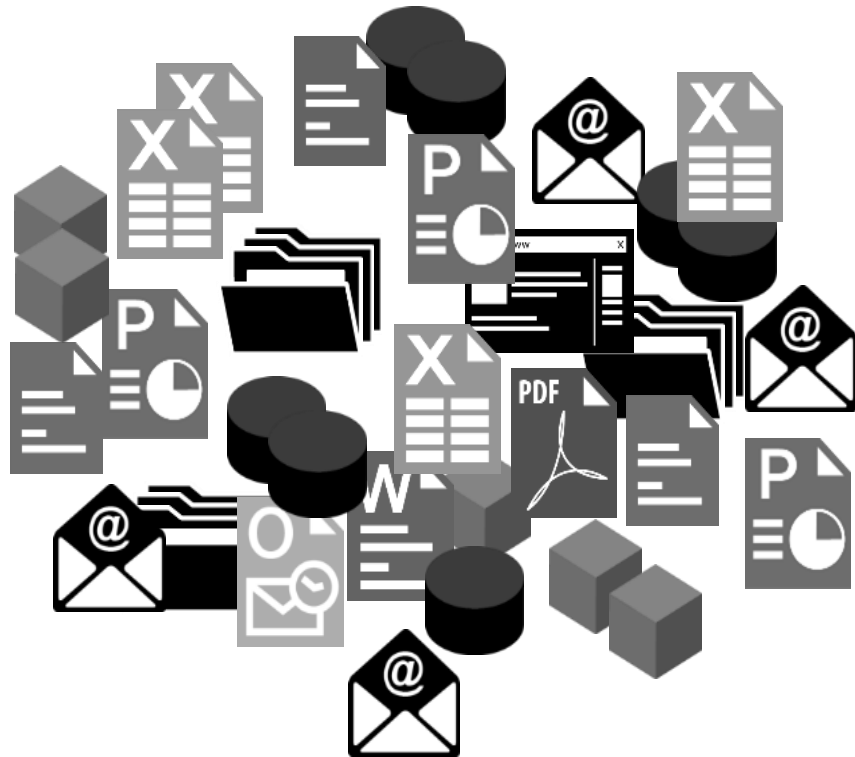


SAP LT Replication Server integration with SAP Data Services - Architecture



What's New In Big Data

Unlock value from new data sources in real time



- Real-time Data Provisioning
- **Harness the Power of HANA**
- Extensible Connectivity

Harness the POWER of HANA

Instant response and faster time-to-value by harnessing the power of HANA

- Real-time insight into your data with **instant profiling**
- **Push down data transformation** to HANA for faster and more efficient processes
- **Data Quality embedded** in HANA
- Faster load with **parallel data extraction, partitioned data load, and multi-node data load**



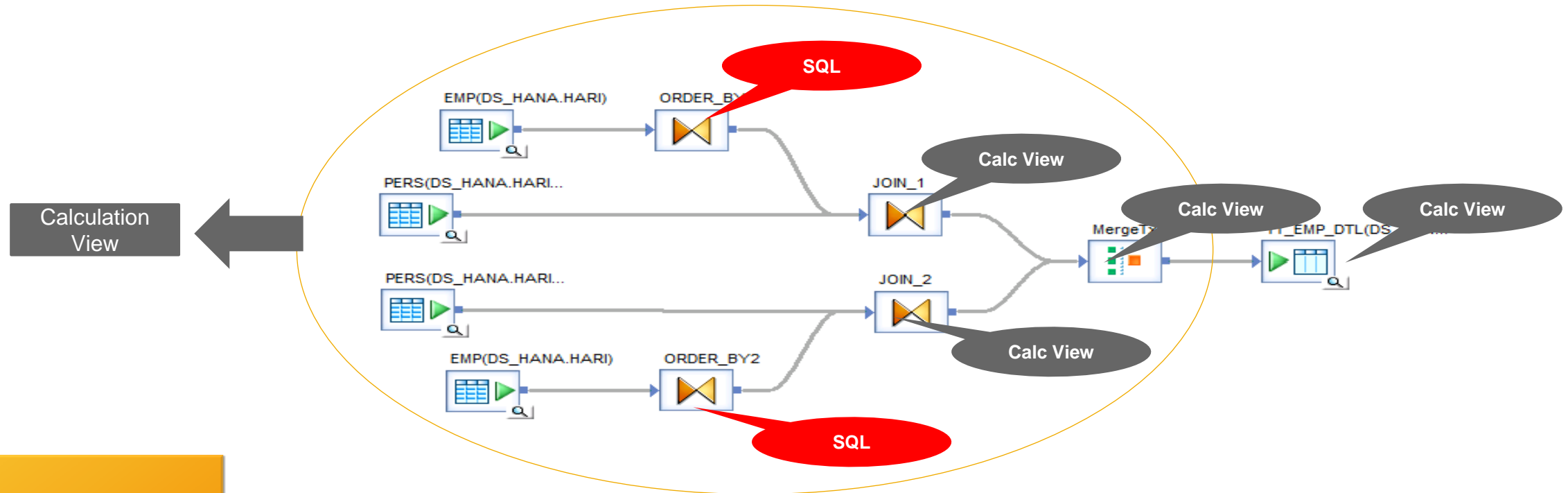
Dataflow Optimization

Using HANA calculation views

- **Push down** data transformation to HANA for faster and more efficient processes
- Data flows are optimized with **SQL** and **SAP HANA SQL Script/L** based Calculation views
- More operations are pushed down into HANA with Calculation view optimization compared to SQL optimization
- Table READ, FUNCTIONS, ORDER BY, GROUP BY, JOIN, MERGE and Rule Validation operations are pushed down to HANA using Calculation views
- Loading of Target HANA tables are done within Calculation View



Dataflow Optimization Comparison - SQL and HANA calculation views



SAP
HANA
In-Memory

Optimized – SQL & HANA calculation views

Optimize
d SQL

```
SELECT "EMP"."EMPNO" , "EMP"."DEPTNO" FROM "HARI"."EMP" "EMP"  
where ( "EMP"."EMPNO" > 500000)  
ORDER BY "EMP"."DEPTNO" ASC
```

```
SELECT { fn ucase( "PERS_1"."FNAME" ) } , "PERS_1"."ADDRESS" , "PERS_1"."EMPNO"  
FROM "HARI"."PERS" "PERS_1"
```

```
SELECT "EMP_2"."EMPNO" , "EMP_2"."DEPTNO" FROM "HARI"."EMP" "EMP_2"  
where ( "EMP_2"."EMPNO" < 500000)  
ORDER BY "EMP_2"."DEPTNO" ASC
```

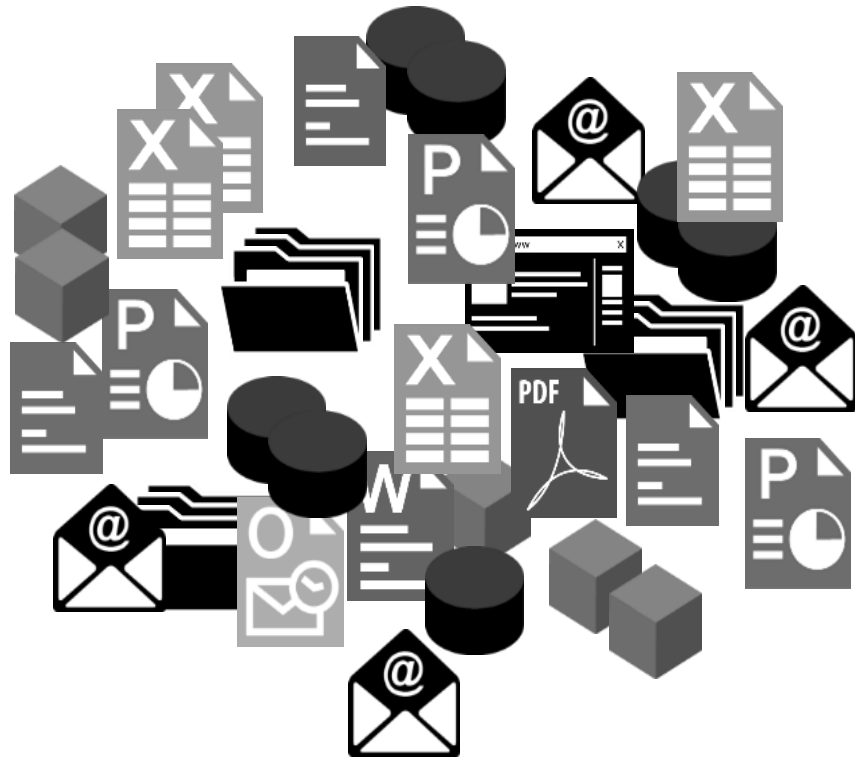
```
SELECT { fn ucase( "PERS"."FNAME" ) } , "PERS"."ADDRESS" , "PERS"."EMPNO"  
FROM "HARI"."PERS" "PERS"
```

Optimized
CalcView

```
CREATE PROCEDURE "HARI"."DS_76F91B_CV_LDR" (OUT VAR_DS_76F91B_TT "HARI"."TT_EMP_DTL") LANGUAGE SQLSCRIPT READS SQL DATA AS  
BEGIN  
PERS = SELECT "EMPNO" "EMPNO","FNAME" "FNAME","ADDRESS" "ADDRESS" FROM "HARI"."PERS";  
  
ORDER_BY1 = SELECT "EMP_2"."EMPNO" "EMPNO", "EMP_2"."DEPTNO" "DEPTNO" FROM "HARI"."EMP" "EMP_2"  
where ( "EMP_2"."EMPNO" < 500000)  
ORDER BY "EMP_2"."DEPTNO" ASC;  
  
JOIN_1 = SELECT "ORDER_BY1"."EMPNO" "EMPNO", { fn ucase( "PERS"."FNAME" ) } "FNAME", "PERS"."ADDRESS" "ADDRESS"  
FROM :PERS "PERS" INNER JOIN :ORDER_BY1 "ORDER_BY1" ON "PERS"."EMPNO" = "ORDER_BY1"."EMPNO";  
  
PERS_1 = SELECT "EMPNO" "EMPNO","FNAME" "FNAME","ADDRESS" "ADDRESS" FROM "HARI"."PERS";  
  
ORDER_BY2 = SELECT "EMP"."EMPNO" "EMPNO", "EMP"."DEPTNO" "DEPTNO" FROM "HARI"."EMP" "EMP"  
where ( "EMP"."EMPNO" > 500000)  
ORDER BY "EMP"."DEPTNO" ASC;  
  
JOIN_2 = SELECT "ORDER_BY2"."EMPNO" "EMPNO", { fn ucase( "PERS_1"."FNAME" ) } "FNAME", "PERS_1"."ADDRESS" "ADDRESS"  
FROM :PERS_1 "PERS_1" INNER JOIN :ORDER_BY2 "ORDER_BY2" ON "PERS_1"."EMPNO" = "ORDER_BY2"."EMPNO";  
  
MergeTx = SELECT "EMPNO","FNAME","ADDRESS" FROM :JOIN_1 UNION ALL SELECT "EMPNO","FNAME","ADDRESS" FROM :JOIN_2;  
  
VAR_DS_76F91B_TT = SELECT * FROM :MergeTx;  
END;
```

What's New In Big Data

Unlock value from new data sources in real time



- **Real-time Data Provisioning**
- **Harness the Power of HANA**
- **Extensible Connectivity**

Extensible connectivity

Easily create adapters to access Big Data sources using a simplified SDK

- Speed up installation and development of new data sources
- Access data in the cloud, e.g. Salesforce, SuccessFactors
- Monitor and capture changes in Big Data sources (CDC)

Web services expansion

- Extend wide data sources connectivity via RESTful web services*



* Note: RESTful web services support is targeted for 4.2 SP1 release

What's New for Smart & Simple

Improve productivity with suggestions and intuitive UI



- **Data Services Workbench**
- **Complex Data Replication**

Data Services Workbench – 4.1 Recap

First introduced in Data Services 4.1

- **Data Replication** Make Simple
- Eclipsed-based User Interface

Data Replication with Workbench

- Many tables
- One-to-one mappings
- Simple transformations

Data Services Workbench 4.2

Source Support:

- Data Services-supported Databases
- SAP Applications
- SAP BW Source
- Flat Files

Target Support:

- SAP HANA
- SAP Sybase IQ
- Teradata
- Oracle
- DB2
- MS SQL Server
- SAP Sybase ASE
- Netezza
- SAP Sybase SQL Anywhere
- Flat Files

Overview of Data Flow Editor

The screenshot displays the SAP Data Services Workbench interface. On the left, the Project Explorer (1) shows a project structure with folders like 'DataFlows' and 'DataStores'. The main area (2) is the Data Flow Editor, showing a flow from source tables (Employee, Person, Address, BusinessEntityAddress) through 'Address Query' and 'Employee Query' to a 'Basic_Cleanse' transform, which then feeds into a 'DIM_EMPLOYEE3' target. A yellow annotation box (4) is placed over the flow with the text 'Consolidate employee information for employee BI analytics'. On the right, the Transforms Palette (4) lists various components like Readers, Loaders, Platform, and Data Integrator. At the bottom, the Transform Editor (3) shows the 'Input schemas for Employee Query (3)' and the 'Employee Query properties' mapping table.

Name	Datatype	Mapping
Employee_Query (21)		
BUSINESS_ID	12 Integer	Employee.BusinessEntityID
NATIONAL_ID	AB Varchar(15)	Itrim(Employee.NationalIDNumber, '')
LOGIN	AB Varchar(256)	Itrim(Employee.LoginID, '')
ORGANIZATN_LVL	12 Integer	Employee.OrganizationLevel

1. Project Editor

2. Data Flow Editor

3. Transform Editor

4. Transforms Palette

Using Auto-Join in Query Transform

DSW assists in table joins with “Auto-Join” detection

The screenshot displays the SAP Data Services Query Transform interface. On the left, a dataflow diagram shows 'Employee' and 'Person' data sources connected to a 'Query' transform. Below the diagram is the 'Input schemas for Query (2)' pane, which lists the 'Person' schema with columns: BusinessEntityID (Integer), PersonType (Varchar(2)), NameStyle (Integer), and Title (Varchar(8)).

The 'Detect joins dialog' is open, showing a table of detected joins:

Left schema	Right schema	Expression	Matching score		
Employee	Person	Employee.BusinessEntityID=Person.BusinessEntit	100	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Below the dialog, two schema comparison panes are shown side-by-side:

- Employee Schema:** BusinessEntityID, NationalIDNumber, LoginID, OrganizationLevel, JobTitle, BirthDate, MaritalStatus, Gender, HireDate, SalariedFlag, VacationHours, SickLeaveHours.
- Person Schema:** BusinessEntityID, PersonType, NameStyle, Title, FirstName, MiddleName, LastName, Suffix, EmailPromotion, AdditionalContactInfo, Demographics, ModifiedDate.

The dialog includes 'Confirm', 'Reject', and 'Confirm All' buttons, and 'OK' and 'Cancel' buttons at the bottom.

Using Auto-Map in Query Transform

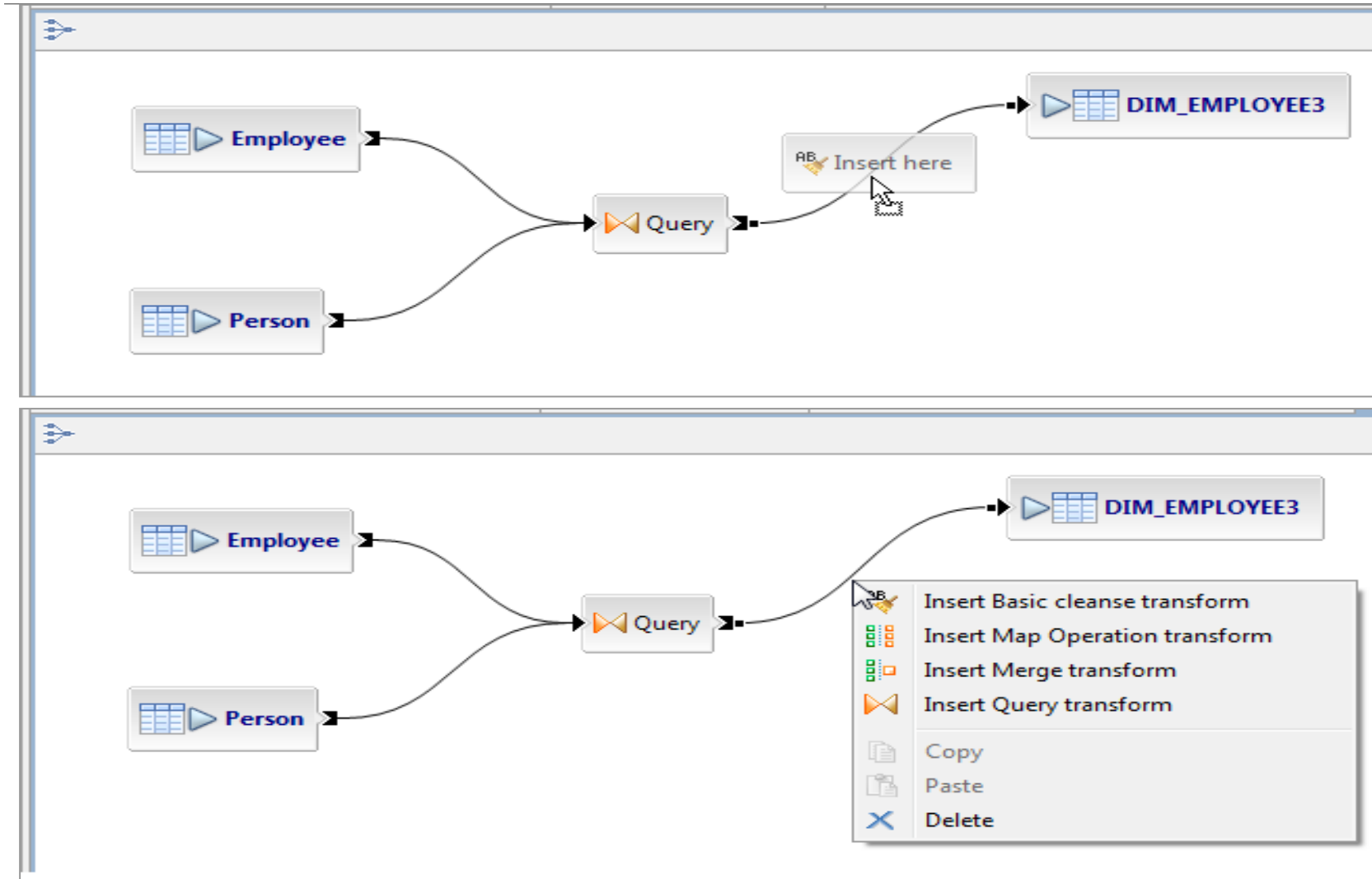
DSW assists in column mapping with “Auto-Map” detection

The screenshot shows the SAP Data Services Workbench interface. On the left, the Project Explorer displays a hierarchy of dataflows and datastores. The main workspace shows a dataflow with two source components, 'Employee' and 'Person', connected to a 'Query' target component. Below the workspace, the 'Input schemas for Query (2)' table is visible, showing the datatypes and descriptions for the 'Person' and 'Employee' schemas.

The 'Detect mapping dialog' window is open, displaying a table of field mappings. The table has the following columns: Field name, Datatype, Candidate field name, Candidate datatype, Matching score, and confirmation buttons (green checkmark and red X). The 'Confirm All' button is highlighted in the top right corner.

Field name	Datatype	Candidate field name	Candidate datatype	Matching score		
MARITAL_STATUS	RB Varchar(1)	Employee.MaritalStatus (1 other)	RB Varchar(1)	100	✓	✗
PERSON_TYPE	RB Varchar(2)	Person.PersonType (2 others)	RB Varchar(2)	98	✓	✗
TITLE	RB Varchar(8)	Person.Title (1 other)	RB Varchar(8)	98	✓	✗
LSTNAME	RB Varchar(50)	Person.LastName (1 other)	RB Varchar(50)	90	✓	✗
SUFFIX	RB Varchar(15)	Person.Suffix	RB Varchar(10)	89	✓	✗
NM_STYLE	12 Integer	Person.NameStyle	12 Integer	81	✓	✗
BIRTH_DT	RB Date	Employee.BirthDate (1 other)	RB Date	81	✓	✗
ORGANIZATN_LVL	12 Integer	Employee.OrganizationLevel (3 others)	12 Integer	80	✓	✗
LOGIN	RB Varchar(256)	Employee.LoginID	RB Varchar(256)	80	✓	✗
GENDER_CODE	RB Varchar(1)	Employee.Gender	RB Varchar(1)	80	✓	✗
NATIONAL_ID	RB Varchar(15)	Employee.NationalIDNumber (2 others)	RB Varchar(15)	80	✓	✗
MID_NAME	RB Varchar(50)	Person.MiddleName (2 others)	RB Varchar(50)	73	✓	✗
JOB_TITLE_DESC	RB Varchar(60)	Person.Title (2 others)	RB Varchar(8)	71	✓	✗
BUSINESS_ID	12 Integer	Person.BusinessEntityID (1 other)	12 Integer	57	✓	✗
BIRTH_HIRED	RB Date	Employee.HireDate	RB Date	52	✓	✗
FNAME	RB Varchar(50)	Person.FirstName (1 other)	RB Varchar(50)	50	✓	✗

Adding Transforms in Between a Transform Connection



You can easily add a Query, Basic cleanse, Map Operations, or Merge transform in between transform connections by

1. Drag & drop the transform from the transform palette on top of a connection, or
2. Right-click on the connection and select the transform you want to insert

Auto-Refactoring of Transform and Field Names in Data Flow

Changing transform names or output field names in a transform will automatically correct all the downstream transform mapping expressions

Before

After

Name	Datatype	Description
Employee		
BusinessEntityID	12 Integer	Primary key for
NationalIDNumber	RB Varchar(15)	Unique national
LoginID	RB Varchar(256)	Network login.
OrganizationLevel	12 Integer	The depth of th

Name	Datatype	Mapping	Description
Query (21)			
BUSINESS_ID	12 Integer	Employee.BusinessEntityID	
NATIONAL_ID	RB Varchar(15)	Employee.NationalIDNumber	
LOGIN	RB Varchar(256)	Employee.LoginID	
ORGANIZATN_LVL	12 Integer	Employee.OrganizationLevel	

Name	Datatype	Description
Employee		
BusinessEntityID	12 Integer	Primary key for
NationalIDNumber	RB Varchar(15)	Unique national
LoginID	RB Varchar(256)	Network login.
OrganizationLevel	12 Integer	The depth of th

Name	Datatype	Mapping	Description
Query (21)			
BUSINESS_ID	12 Integer	Employee.BusinessEntityID	
NATIONAL_ID	RB Varchar(15)	Employee.NationalIDNumber	
LOGIN_XXXX	RB Varchar(256)	Employee.LoginID	
ORGANIZATN_LVL	12 Integer	Employee.OrganizationLevel	

Using Expression Macros in the Query Transform Editor

Apply “expression macro” for common operations to multiple column mappings

The screenshot displays the SAP Query Transform Editor interface for a dataflow named 'DF_Load_Person.dataflow'. The interface is divided into several panes:

- Input schemas for Query (2):** Shows two source schemas: 'Employee' and 'Person'. The 'Employee' schema includes fields like BusinessEntityID (Integer), NationalIDNumber (Varchar(15)), LoginID (Varchar(256)), OrganizationLevel (Integer), JobTitle (Varchar(50)), BirthDate (Date), MaritalStatus (Varchar(1)), Gender (Varchar(1)), HireDate (Date), SalariedFlag (Integer), VacationHours (Integer), SickLeaveHours (Integer), CurrentFlag (Integer), and ModifiedDate (DateTime). The 'Person' schema includes BusinessEntityID (Integer), PersonType (Varchar(2)), NameStyle (Integer), Title (Varchar(8)), FirstName (Varchar(50)), MiddleName (Varchar(50)), and LastName (Varchar(50)).
- Mappings:** A table showing the mapping of source fields to target query fields. The 'NATIONAL_ID' mapping is selected, showing it maps 'Employee.NationalIDNumber' to 'NATIONAL_ID' (Varchar(15)).
- Context Menu:** A menu is open over the 'NATIONAL_ID' mapping, listing various actions: 'Apply expression macro' (with a sub-menu), 'Primary key', 'Nullable', 'Content type', 'Edit datatype...', 'Move up', 'Move down', 'Copy', 'Paste', and 'Delete'. The sub-menu for 'Apply expression macro' includes: 'Remove null values', 'Remove left spaces', 'Clear mapping', 'Add SRC_Prefix to field name', 'Increment + 1', 'Map Blank', and 'Manage expression macros...'. The 'Copy' and 'Paste' options are also visible.

What's New In Information Governance

Improve the business value of your information



- **Data Quality Management
Global Expansion**

Data Quality Management Global Expansion

Expanding the global reach of your Data Quality initiatives to where you do business

- New Global Address Cleanse solutions for emerging markets: Mexico and Russia
- Transliteration support to allow non-native speakers to manage foreign address data more effectively
 - Cyrillic and Chinese writing systems
- Country-specific addressing standards within the EMEA and APJ regions
 - India Point-Of-Reference assignment
 - Austria building/garden plot colonies and UK sub-building
- New Geocoding solution for Western Europe
 - (min. scope) Austria, Belgium, Spain (parcel), Italy, Sweden, Denmark
 - (**stretch**) Finland, Netherlands, Norway, Poland, Portugal



What's New In Enterprise Enhancements

Constantly improving robustness, reliability, performance



- **Data Services Administration**
 - Job Lifecycle Management
 - Job Execution Statistics
- **Data Quality Transform Enhancements**
- **Data Cleanse Info/Status Codes**
- **Map_Operation Transform Enhancements**
- **Text Data Processing**

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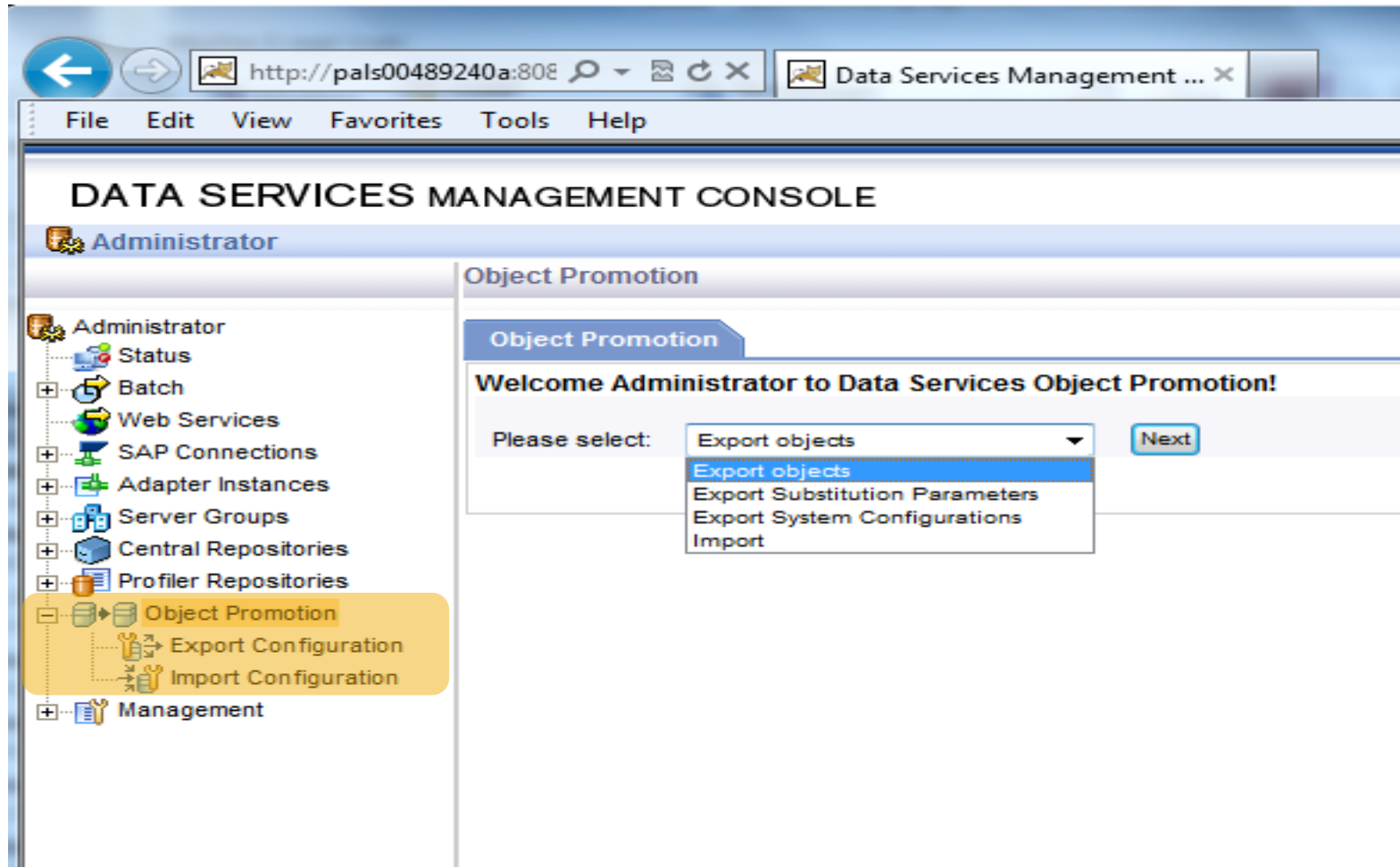
Data Services Job Lifecycle Management

On board tools to manage DS job promotion from development to production

- Manage testing and deployment with built-in tool
- Control access and securely transport DS objects
- Complete audit trail tracking deployment process



Job Promotion: Configuration - Export - Import



Object Export

Home > Source Repository and Object Type > Export > Confirmation

Source Repository and Object Type

Select Repository:

Type:

Home > Source Repository and Object Type > Export > Confirmation

central_repo1 - Project

Get: Object name: Page: 1

Select	Object name	Version	Check-in user	Last Modified	Exported	Comment or Description
<input type="checkbox"/>	productionProj	1	Administrator	Mon Dec 31 15:40:22 2012	No	production job
<input type="checkbox"/>	productionProj2	1	Administrator	Mon Feb 11 20:04:45 2013	No	checking in new project
<input type="checkbox"/>	Select All					

**Note: All the dependents of the object will be exported.*

*Export to:

Export Confirmation

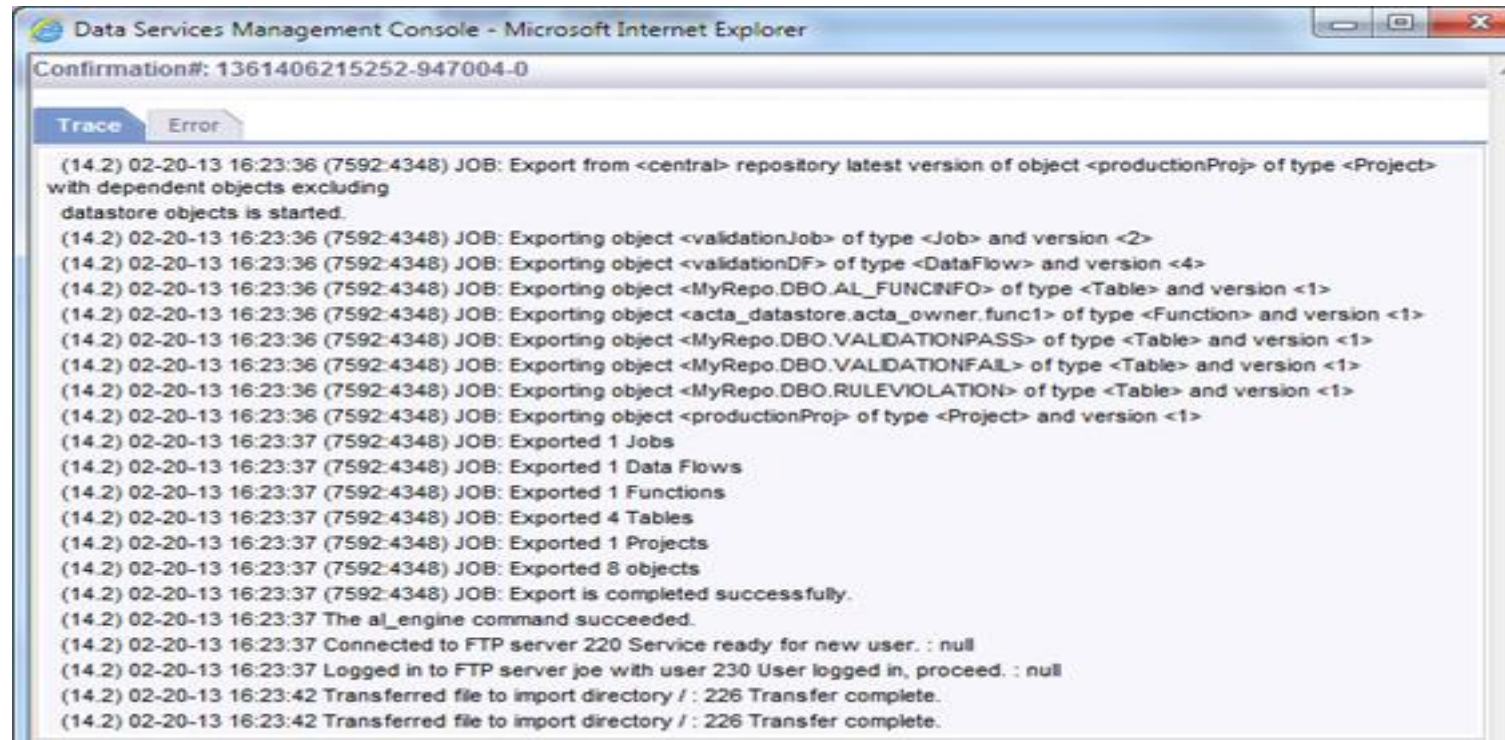
Home > Source Repository and Object Type > Export > Confirmation

Confirmation

Confirmation#: 1361406215252-947004-0
Source Repo: central_repo1
Object Type: [Project]
Export Config: [Production_FTP_Location]

Status: **Completed**
Success: 1 object(s)
Fail: 0 object(s)

Object name	Label	Export Completed	Status
productionProj		Wed, Feb 20, 2013 - 16:23:43 PST	Success (view log)



Import Configuration

Object Promotion > Import Configuration > Import Directory

Import Directory

Please enter the location where ATLs are exported:

Repository:	prodRepo2
Import Directory*:	\\PALD00489196A\ExportedATL

Save Cancel

Import

Home > Target Repository > Import > Confirmation

Target Repository

Select Repository:

Next

Home > Target Repository > Import > Confirmation

Target Repository: prodRepo2

Page: 1

Filter: All
 Objects exported the last Days
 From: To:

Search by:

Select	Object Name (ATL Filename)	Type	Label (Ver)	Source Repository	Source Repo Ver.	Date exported (initiated)	Imported	Exported by
<input type="checkbox"/>	DF7	Dataflow	(2)	central_repo1	14.2.0.0000	Fri, Feb 15, 2013 - 17:16:35 PST	yes	Administrator
<input type="checkbox"/>	DF7	Dataflow	(2)	central_repo1	14.2.0.0000	Tue, Feb 19, 2013 - 13:48:00 PST	no	Administrator
<input type="checkbox"/>	DF_TEMP2	Dataflow	(1)	central_repo1	14.2.0.0000	Fri, Feb 15, 2013 - 17:16:31 PST	no	Administrator
<input type="checkbox"/>	DF_TEMP2	Dataflow	(1)	central_repo1	14.2.0.0000	Tue, Feb 19, 2013 - 13:47:59 PST	no	Administrator
<input type="checkbox"/>	RT_TestConnectivity	Dataflow	(1)	central_repo1	14.2.0.0000	Fri, Feb 15, 2013 - 17:16:41 PST	yes	Administrator
<input type="checkbox"/>	RT_TestConnectivity	Dataflow	(1)	central_repo1	14.2.0.0000	Tue, Feb 19, 2013 - 13:48:04 PST	yes	Administrator
<input type="checkbox"/>	testDF_1	Dataflow	(2)	central_repo1	14.2.0.0000	Fri, Feb 15, 2013 - 17:16:44 PST	yes	Administrator
<input type="checkbox"/>	testDF_1	Dataflow	(2)	central_repo1	14.2.0.0000	Tue, Feb 19, 2013 - 13:48:07 PST	yes	Administrator
<input type="checkbox"/>	validationDF	Dataflow	(4)	central_repo1	14.2.0.0000	Fri, Feb 15, 2013 - 17:16:48 PST	yes	Administrator
<input type="checkbox"/>	validationDF	Dataflow	(4)	central_repo1	14.2.0.0000	Tue, Feb 19, 2013 - 13:48:10 PST	yes	Administrator
<input type="checkbox"/>	Select All							

Import

Delete

Import Confirmation

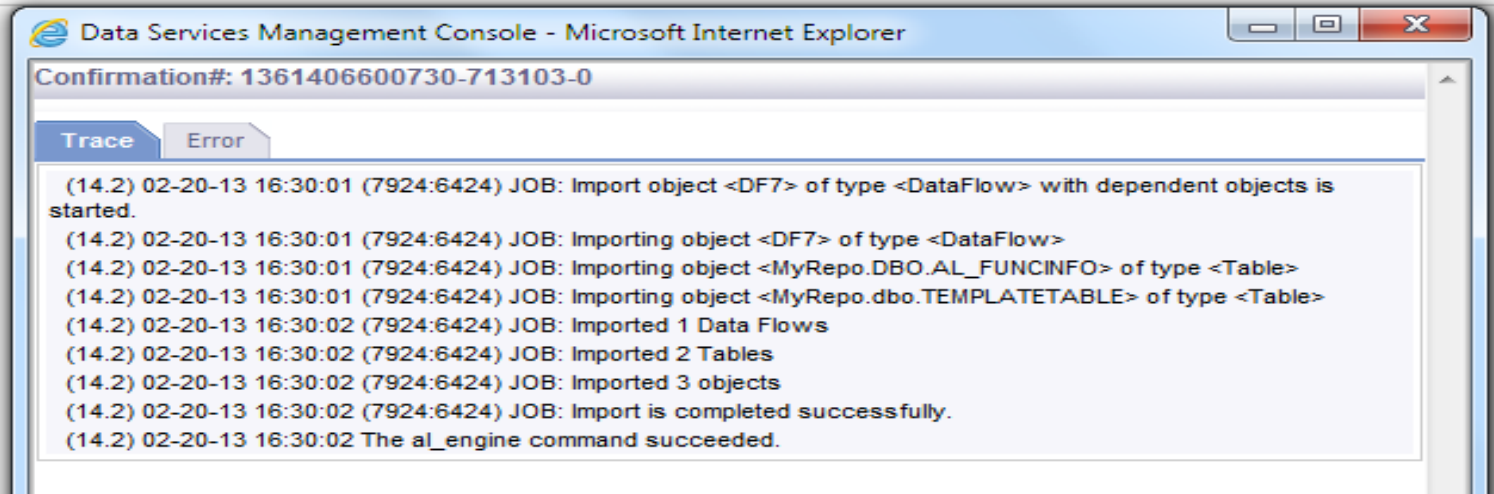
Home > Target Repository > Import > Confirmation

Confirmation

Confirmation#: 1361406600730-713103-0
Target Repository: prodRepo2

Success: 1 object(s)
Success but requires attention: 0 object(s)
Fail: 0 object(s)

Object name	Type	Date exported (initiated)	Source Repository	Import Completed	Status
DF7	Dataflow	Tue, Feb 19, 2013 - 13:48:00 PST	central_repo1	Wed, Feb 20, 2013 - 16:30:02 PST	Success (view log)



Data Services Job Execution Statistics Web Services

Monitor processes using standard management tools and dashboards

- View detailed runtime statistics at the job, workflow & dataflow level
- Ensure compliance with SLA by integrating with monitoring tools, such as, Solution Manager and SAP Dashboard
- Proactively fine tune data load performance with the ability to visualize and identify data load bottlenecks



Data Quality Transform Enhancements

Customer-driven improvements to simplify your Data Service data flows and improve results

Global Address Cleanse Transform

- Process Latin and non-Latin scripts with single configuration
- Additional match standard output field

Data Cleanse Transform

- 1:1 input/output field mapping
- One phone field for international and North American numbers
- Improved parsing for person data
- Option to remove diacritical characters
- Additional match standard output fields
- Regional parsing and standardization rules for person and firm



Data Cleanse Info/Status Codes

Greater insight into the cleansing process with Data Cleanse informational and status codes

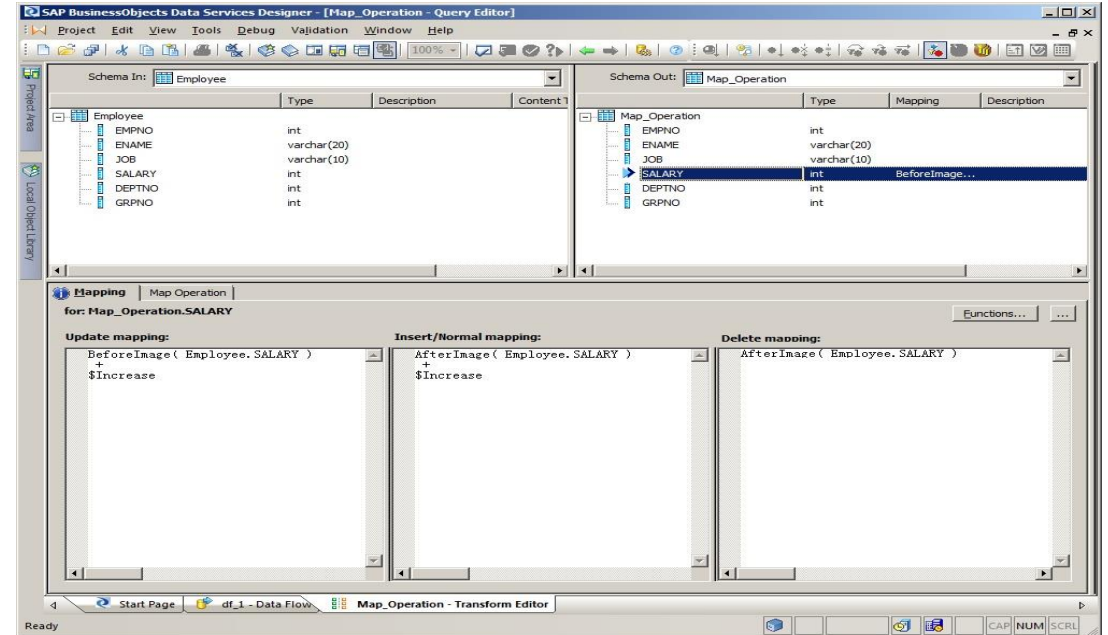
- Status codes describe how the data was parsed and standardized
- Informational codes guide the user to records that may need additional review/verification

Input Data	Cleansed Data	Info/Status Code	Description
MISTER JOHN SMITH	Mr. John Smith	PERSON1_PRENAME_STD	Cleansed (Prefix/Suffix change)
JOHN SMITH JUNIOR	John Smith Jr.	PERSON1_MATURITY_POSTNAME_STD	Cleansed (Prefix/Suffix change)
JOHN SMITH PHD	John Smith, Ph.D.	PERSON1_HONORARY_POSTNAME_STD	Cleansed (Prefix/Suffix change)
JOAO FIGUEIREDO	João Figueiredo	PERSON1_GIVEN_NAME1_STD	Cleansed (Name change)
JUAN FCO TORRES	Juan Francisco Torres	PERSON1_GIVEN_NAME2_STD	Cleansed (Name change)
JOHN MACARTHUR	John MacArthur	PERSON1_FAMILY_NAME1_STD	Cleansed (Name change)
XXYYZZ SMITH	Xxyyzz Smith	P101	Suspect (Low confidence name)
JOHN	John	P104	Suspect (Incomplete name)
MR. SMITH	Mr. Smith	P105	Suspect (Incomplete name)
JOHN SMITH (HP)	John Smith	I131	Suspect (Additional data found)

Transforms Enhancements: Map_Operation Transform

Enhance Map_Operation Transform to allow for complex data transformation with non normal row types

- Enhanced support to allow data mapping with Insert, update and delete rows
- Simplify and speed up the complex ETL design process for non-normal row types



Map_Operation_Transform

The screenshot displays the SAP BusinessObjects Data Services Designer interface for configuring a Map_Operation Transform. The window title is "SAP BusinessObjects Data Services Designer - [Map_Operation - Query Editor]".

Schema In: Employee

Field	Type	Description	Content
EMPNO	int		
ENAME	varchar(20)		
JOB	varchar(10)		
SALARY	int		
DEPTNO	int		
GRPNO	int		

Schema Out: Map_Operation

Field	Type	Mapping	Description
EMPNO	int		
ENAME	varchar(20)		
JOB	varchar(10)		
SALARY	int	BeforeImage...	
DEPTNO	int		
GRPNO	int		

Mapping for Map_Operation.SALARY

Update mapping:

```
BeforeImage( Employee.SALARY )  
+  
$Increase
```

Insert/Normal mapping:

```
AfterImage( Employee.SALARY )  
+  
$Increase
```

Delete mapping:

```
AfterImage( Employee.SALARY )
```

The bottom of the window shows the "Map_Operation - Transform Editor" tab, with a status bar indicating "Ready".

Text Data Processing Enhancements

Entity Extraction Transform improved to simplify Text Data Processing data flows and improve results

- Single transform for multiple languages
- Automatic language identification and selection of language-specific custom dictionaries and rules
- Expansion of Dutch and Portuguese extraction
- New Simplified Chinese Voice of the Customer rules
- Expansion of Emoticon and Profanity extraction in French, German, and Spanish





Data Services 4.2

New Features and Enhancements

Data Services 4.2 Release Schedule

Currently Available through SAP Ramp-Up program

4.2 Release supports:

- OS: Windows and Linux

4.2 SP1

- Target for Q4, 2013

Key Learnings

SAP Data Services 4.2 focuses around:

- Big Data
- Smart and Simple
- Information Governance
- Enterprise Readiness

Major Data Services 4.2 features and enhancements

- Realtime CDC integration with Replication Server and SLT
- HANA Optimizations and pushdowns
- Job Promotion Process

Enterprise Information Management with SAP

- Understand the big picture of SAP's enterprise information management offerings
- Explore step-by-step instructions for working with SAP Data Services
- Learn how to perform the most important tasks in SAP Information Steward, SAP NetWeaver Information Lifecycle Management, SAP Master Data Governance, and more
- All royalties donated to Doctors Without Borders

Reviews are in!

READ THIS ITS EXCELLENT ★★★★★

Posted by Anonymous on Dec 16th, 2012

From start to end this book gives you complete detail information about EIM

Very good book about EIM and Data Services ★★★★★

Posted by Anonymous on Nov 26th, 2012

This book has all information about EIM, manage data quality, migration process and a good overview about SAP HANA.



★★★★★
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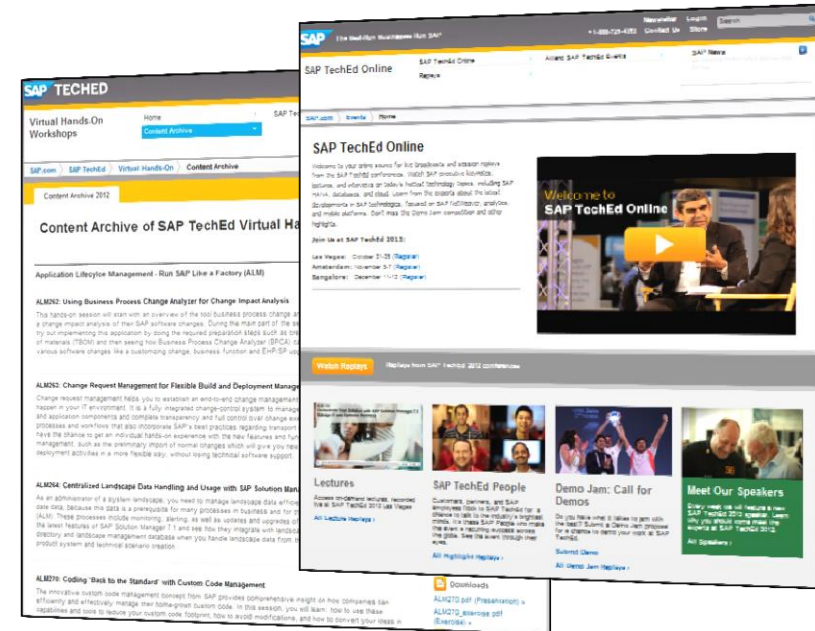
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Feedback

Please complete your session evaluation for [RDP103](#)

Connie Chan

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SAP Data Services

Thanks for attending this SAP TechEd session.



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