SAP Sourcing / CLM 2013 Webcast Series

Goal
• Spread the knowledge about SAP Sourcing
• Build and leverage the SAP Sourcing community

Audience
• SAP Consulting and Field Services
• Partner Consulting
• SAP Sourcing Customers

Upcoming Webcasts
• ERP Integration: Business process
• SRM Integration: Business process
• Navigation of SAP Service Marketplace
SAP Sourcing/CLM Upcoming Trainings

Functional Training TSO100
- **When:** Nov, 4 – Nov, 8
- **Where:** Newtown Sq, PA
- **Who:** Armin Fakouhi

Technical Training
- **When:** Dec, 2 – Dec, 6
- **Where:** Newtown Sq, PA
- **Who:** Vikram Shanmugasundaram

How to sign up?
- www.training.sap.com
- Search for TSO100/150/180
- Contact: armin.fakouhi@sap.com
Agenda

- ERP Integration Overview
- Master Data Integration Scenarios
- Business Process Integration Scenarios
ERP Integration Overview
SAP ERP and SAP Sourcing/CLM Integration

Solution Goals

The standard integration is designed to achieve two major goals:

- Enable the replication of a subset of master data from SAP ERP to SAP Sourcing/CLM to synchronize relevant master data used by both applications.

- Enable cross-system business processes that are naturally connected as part of the business flow so that users don’t have to enter the same data in multiple places.
SAP’s Integrated Source-to-Pay Solution Vision
A complete integrated solution to support full end-to-end procurement

Legend:
- Existing integration
- Typical custom integration scenario

With additional integration options, you have the flexibility to model many different scenarios. Not all components and integration points are required for every customer situation. The model can be extended with custom integration scenarios.

General flow is left to right. Arrows illustrates the key integration touchpoints.

* Vertical gray topics have integration to many areas. Arrows not shown for brevity.
SAP ERP and SAP Sourcing/CLM Integration

Typical Business Process

The typical business process between ERP and SAP Sourcing/CLM works in the following way:
SAP ERP and SAP Sourcing/CLM Integration

Process flows

Master Data Integration Scenarios

- Customizing
- Material
- Vendor

Payment Terms
Incoterms
Material Groups
Plants
Etc., ...

SAP ERP

Purchase Requisition

RFQ

Purchase Order

Outline Agreement

Business Process Integration Scenarios

RFx

Awards

Bidding

Legal Document

SAP Sourcing

Supplier

Supplier Registration
SAP ERP and SAP Sourcing/CLM Integration
System Landscape and Data Transport

Internet / Firewall
In case of Hosted/OnDemand
SAP ERP and SAP Sourcing/CLM Integration
Customizing and Master Data Integration – Technical process overview
SAP ERP and SAP Sourcing/CLM Integration
Business Process Integration - Technical process overview

ERPMAP
Create purchase requisition

Create request for quotation

IDoc ORDERS05 Message REQOTEXML

RFC BBP_ES_CROSS_REF_UPDATE
Update purchase requisition with references

RFC BBP_ES_PO_CREATE
Create purchase order

RFC BBP_ES_OA_CREATE
Create contract / scheduling agr

RFC BBP_ES_OA_UPDATE
Update contract / scheduling agr

PI

IDoc Adapter

FTP Adapter

Mapping

RFQ Outbound XML

RFC Adapter

HTTP Adapter

Create RFx

Create award for RFx

Create master agreement

Update master agreement

SAP Sourcing

Create purchase requisition

Create request for quotation

IDoc ORDERS05 Message REQOTEXML

RFC BBP_ES_CROSS_REF_UPDATE
Update purchase requisition with references

RFC BBP_ES_PO_CREATE
Create purchase order

RFC BBP_ES_OA_CREATE
Create contract / scheduling agr

RFC BBP_ES_OA_UPDATE
Update contract / scheduling agr

RFC Adapter

HTTP Adapter

Create purchase request with references

Create purchase order

Create master agreement

Update master agreement
Integration Scenario Details

Master Data Integration Scenarios

- Replicate Dependent Data / Customizing from ERP to SAP Sourcing
- Replicate ERP Vendor to SAP Sourcing Supplier
- Replicate ERP Material Master to SAP Sourcing
- Publish Supplier from SAP Sourcing to ERP

Business Process Integration Scenarios

- ERP Requisition to SAP Sourcing RFx
- SAP Sourcing RFx Award to ERP PO or Outline Agreement
- SAP Sourcing Agreement to ERP Outline Agreement
Data transfer from SAP ERP to SAP Sourcing/CLM

There are two basic approaches to transfer data from ERP into SAP Sourcing/CLM

- **Option 1: File-Based offline transfer (no system connection)**
  - Allows initial transfer of ERP data if no permanent connection is required
  - Standalone usage of SAP Sourcing/CLM
  - Uses data extraction reports in ERP, XML and CSV based files
  - Manual import into SAP Sourcing/CLM

- **Option 2: PI based import (permanent connection)**
  - For ongoing data transfer and synchronization
  - Used for the initial and ongoing data transfer and synchronization
  - Uses IDOC / ALE and file based data transfer via PI
SAP ERP and SAP Sourcing/CLM Integration
Customizing and Master Data Integration – Option 1: for System startup

- **ERP**
  - Material master
  - Vendor master
  - Master and Customizing Data transfer reports
  - File downloads

- **PI**
  - IDoc Adapter
  - FTP Adapter
  - Mapping
  - Material outbound XML file
  - Material outbound file

- **SAP Sourcing**
  - Product
  - Supplier
  - Customizing
  - Supplier (to be created in ECC)

- **Mapping**
  - IDoc MATMAS
  - IDoc CREMAS
  - Vendor master
  - FTP Adapter
  - ES File Importer
  - ES File Exporter

- **Adapter**
  - IDoc Adapter
  - FTP Adapter
Available ERP reports for file based extraction (Option 1: for System startup)

Report

**BBP_ES_CUSTOMIZINGDATA_EXT_CSV**
Extraction in CSV format

- Unit of measure categories
- Unit of measure category texts

- Company codes
- Payment terms
- Material group (product category)
- Plant
- Price conditions/condition types
- Purchasing organizations
- Purchasing groups
- ERP regions
- Incoterms
- Vendor account group
- Unit of measure
- Unit of measure ISO codes
- Currency
- Currency ISO Codes

Report

**BBP_ES_CUSTOMIZINGDATA_EXTRACT**
Extraction in XML Format

Report

**BBP_ES_MASTERDATA_EXTRACT**
Extraction in XML Format

- Supplier Master
- Material Master
Master Data Integration
Option 2: On-going maintenance: Material Master

Material IDoc MATMAS05 is exported from SAP ERP to SAP NetWeaver PI server where it is converted to SAP Sourcing format.

SAP NetWeaver PI pushes resulting files to sourcing/inbound/materials folder of SAP Hosting FTP server using FTPS protocol.

SAP Sourcing picks up file on sourcing/inbound/materials folder and creates material.
Master Data Integration
Option 2: On-going maintenance: Vendor Master

Vendor iDoc CREMAS05 is exported from SAP ERP to SAP NetWeaver PI server where it is converted to SAP Sourcing format.

SAP NetWeaver PI pushes resulting files to sourcing/inbound/vendors folder of SAP Hosting FTP server using FTPS protocol.

SAP Hosting picks up file on sourcing/inbound/vendors folder and creates supplier.
SAP Sourcing Supplier Replication to ERP

- SAP Sourcing suppliers can be replicated and updated to ERP
- Multi ERP backend Integration for suppliers
SAP ERP and SAP Sourcing/CLM Integration
Customizing and Master Data Integration – SAP Sourcing Supplier Replication to ERP
Integration Scenario Details

Master Data Integration Scenarios
• Replicate Dependent Data / Customizing from ERP to SAP Sourcing
• Replicate ERP Vendor to SAP Sourcing Supplier
• Replicate ERP Material Master to SAP Sourcing
• Publish Supplier from SAP Sourcing to ERP

Business Process Integration Scenarios
• ERP Requisition to SAP Sourcing RFx
• SAP Sourcing RFx Award to ERP PO or Outline Agreement
• SAP Sourcing Agreement to ERP Outline Agreement
Common Features of Sourcing/CLM Integrated Business Documents

- **Integration Tab**: Define operational ERP Document data (Purchasing Organization, Transaction Type etc.)

- **Cross-System Document References**: on Header and Line Item level

- **Price Conditions**: throughout the complete Business Process starting with RFx, RFx Response & Award and Master Agreement & (Sub-) Agreement.

- **Material and free text Service items**: supported throughout the complete Business Process (from the ERP Purchase Requisition to SAP Sourcing/CLM RFx, Auction, Master Agreement back to ERP)
Integration Scenario Features
ERP Requisition to SAP Sourcing RFx

- Document references: SAP Sourcing RFx Line Items contains ERP PR and RFQ reference information. ERP PR captures reference to SAP Sourcing RFx information.
- SAP Sourcing transfer can be configured at Vendor level using Vendor External System Configuration
- Configurable SAP Sourcing RFx template allows users to configure flexible process for integrated RFQ’s
- Detailed ERP information including Header and Line level text are transferred to SAP Sourcing for accurate transaction processing
- Price conditions and text ID’s can be mapped across SAP Sourcing and ERP for flexible business process support
Integration Scenario Details
ERP Requisition to SAP Sourcing RFx

Create Purchase Requisition

Create RFQ: Selection List: Purchase Requisitions

RFx List

Find: 600000099
In: Name

Query: All RFxs

New
New Template

ID | Name | Product Category
---|------|-------------------
QB-00002 | MRO Part II | Manufacturing equipment repair services
QB-00003 | MRO Part III | Manufacturing equipment repair services
Integration Scenario Details - Technical
ERP Requisition to SAP Sourcing RFx

SAP NetWeaver PI updates SAP ERP RFQ by calling RFC function

SAP NetWeaver PI picks up XML file from sourcing/outbound/rfx folder of FTP server using FTPS protocol

SAP Sourcing sends XML file containing RFP ID to sourcing/outbound/rfx folder of FTP server

RFQ ID doc ORDERS005 is exported from SAP ERP to SAP NetWeaver PI server where it is converted to SAP Sourcing format

SAP NetWeaver PI pushes resulting files to sourcing/inbound/rfx folder of SAP Hosting FTP server using FTPS protocol

SAP Sourcing picks up file on sourcing/inbound/rfx folder and creates RFP
Integration Scenario Details

Master Data Integration Scenarios
- Replicate Dependent Data / Customizing from ERP to SAP Sourcing
- Replicate ERP Vendor to SAP Sourcing Supplier
- Replicate ERP Material Master to SAP Sourcing
- Publish Supplier from SAP Sourcing to ERP

Business Process Integration Scenarios
- ERP Requisition to SAP Sourcing RFx
- SAP Sourcing RFx Award to ERP PO or Outline Agreement
- SAP Sourcing Agreement to ERP Outline Agreement
Integration Scenario Details
SAP Sourcing RFx Award to ERP PO or Outline Agreement

- SAP Sourcing RFx Award can be published to ERP to create a Purchase Order or an Outline Agreement
- Convenient validation check and error handling in SAP Sourcing
- Document Extensibility Support – Extended fields can be transferred to ERP
- Price condition and text ID mappings for process flexibility
Integration Scenario Details
SAP Sourcing RFx Award to ERP PO or Outline Agreement
Integration Scenario Details - Technical
SAP Sourcing RFQ Award to ERP PO or Outline Agreement

1. Business is awarded in SAP Sourcing and sent to SAP NetWeaver PI using HTTP adapter
2. Message is received by SAP NetWeaver PI server
3. SAP NetWeaver PI passes data to function module on back end which creates purchase order
4. SAP ERP sends back response containing purchase order number
5. SAP NetWeaver PI sends response to SAP Sourcing
6. SAP Sourcing is updated with number returned

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Integration Scenario Details

Master Data Integration Scenarios

• Replicate Dependent Data / Customizing from ERP to SAP Sourcing
• Replicate ERP Vendor to SAP Sourcing Supplier
• Replicate ERP Material Master to SAP Sourcing
• Publish Supplier from SAP Sourcing to ERP

Business Process Integration Scenarios

• ERP Requisition to SAP Sourcing RFx
• SAP Sourcing RFx Award to ERP PO or Outline Agreement
• SAP Sourcing Agreement to ERP Outline Agreement
Integration Scenario Details
SAP Sourcing Agreement to ERP Outline Agreement

- SAP Sourcing Master Agreement can be created as Outline Agreements in ERP (Quantity/Value Contract or Scheduling Agreement are supported types of Outline Agreements)
- Flexible validation check and error handling in SAP Sourcing
- Document Extensibility Support – Extended fields can be transferred to ERP
- Pricing condition and text ID mappings for process flexibility
- Full pricing condition transfer incl. price scales
- Improved integrity and compliance between the integrated documents (Delete, Update, Add actions are tightly synchronized)
Standard Material Items
SAP Sourcing Agreement to ERP Outline Agreement

Published to SAP ERP

ERP-RFQ Reference

Condition Scales

Line Item cross reference
Service Items
SAP Sourcing Agreement to ERP Outline Agreement

Published to SAP ERP

Service Price Conditions

Condition Scales

Services in line item 1

RFQ Reference
Integration Scenario Details - Technical
SAP Sourcing Agreement to ERP Outline Agreement

1. Business is awarded in SAP Sourcing and sent to SAP NetWeaver PI using HTTP adapter.
2. Message is received by SAP NetWeaver PI server.
3. SAP NetWeaver PI passes data to function module on back end which creates outline agreement.
4. SAP ERP sends back response containing outline agreement ID.
5. SAP NetWeaver PI sends response to SAP Sourcing.
6. SAP Sourcing is updated with number returned.
Additional Resources

- SCN Blog Posts:
  - “Extracting ERP Master data for SAP Sourcing/CLM”
  - “How to configure Price Conditions in SAP Sourcing/CLM”
  - “How to configure Price Conditions in SAP Sourcing/CLM (Part II)”
  - “Using Price Conditions in SAP Sourcing/CLM”
  - “ERP integration with SAP Sourcing/CLM – tips and tricks”

- SAP Note **1653944**: Special Points to Consider when Integrating SAP Sourcing/CLM Wave 9 with SAP ERP

Q&A
Thank You

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