Agenda

Positioning

Use Cases

Conclusion
SAP XI is an integration platform

- for SAP and non-SAP applications
- for A2A and B2B scenarios
- for a Service Oriented Architecture
- for cross-component Business Process Management
Why Choose SAP Exchange Infrastructure?

**Today**

SAP XI

... enables an easy integration of applications and business partners based on open standards

... is harmonized with all other components of the integration suite SAP NetWeaver™

... provides „out of the box“ implementation through XI content

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**Tomorrow**

SAP XI will be

... used by all new SAP solutions as process integration platform

... an integral part of SAP’s open and service-based architecture ESA (Enterprise Services Architecture)
SAP XI facts and figures

- XI is a product with more than 1000 shipments
- SAP XI 3.0 is general available since October 2004
- 200 reference customers
- 1800 SAP NetWeaver™ reference customers
Use Cases

- A2A and Adapters
- B2B and Industry Standards
- Business Process Management
- SAP Standard Solution
- Collecting and Distributing Receipt Data
- High Volume Processing
Global Candy Maker

Objectives:
- Provide an EDI solution on the Internet rather than on a Value Added Network (VAN)
- Reduce VAN charges while protecting the ability to connect to UCCNet
- Protect long-term SAP investment

Benefits:
- Elimination of expensive VAN charges by communicating directly and securely over the Internet
- Single-Vendor-Strategy: Take advantage of the whole SAP NetWeaver technology (tight integration to existing SAP systems)
- One common exchange platform

Description:
- Use SEEBURGER EDI Adapter to convert XML message to EDI format
- Transfer EDI message via HTTP or AS2 protocol to replace expensive Value Added Network (VAN)
VAN Elimination Scenario

Proxy or Adapter (RFC, IDoc)

SAP XI

SEEBURGER EDI Adapter

Logical Routing

Technical Routing

Mapping

EDIINT AS2

3rd Party Application

3rd Party Application

3rd Party Application

Partner Systems

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Objective:
- Implement XI 2.0 to gain the benefits of a message hub in a non-disruptive way
- Incorporate existing Mercator mappings in SAP XI

Benefits:
- Leverage existing 3rd party tools to minimize implementation effort.
- One environment for SAP->SAP and SAP->non-SAP integration
- Track and trade message flows with automatic guaranteed delivery
- “Having a single, open integration platform from SAP, the same company that provides us with our business solutions, leverages our existing know-how and reduces our total cost of ownership.” (customer quote)

Description:
- Perform routing, XSLT mapping and address resolution within XI
- Perform mapping and transportation within existing Mercator system.
- Integrate with existing JMS-based products
Use Cases

- A2A and Adapters
- B2B and Industry Standards
- Business Process Management
- SAP Standard Solution
- Collecting and Distributing Receipt Data
- High Volume Processing
Objective:
- Gain the benefits of communication using industry standards
- Enable Standard Business Processes

Benefits:
- Industry Standard Integration “out of the box”
- Leverage provided content for fast implementation of RosettaNet Partner Interface Processes (PIPs) including 3A4, 3A8, and 3A9 using SAP BPM
- Harmonized end-to-end processing including SAP Systems
- Exchange messages securely using RNIF and message encryption

Description:
- Example scenario: Purchase Order Request (RosettaNet PIP 3A4)
- For complete details of the scenario, see next slide.
RosettaNet Scenario (SAP as Seller)

SAP XI

SAP Business Package for RosettaNet

Integration Repository
- Interfaces
- Mappings
- Integration-scenarios
- ...

Integration Directory
- Collaboration Profiles
- Security settings
- ...

3rd Party Application

PO Req
ACK

Order CONF
ACK

ORDERS05
ORDERSP

SAP Application
Project:
- Update XI 2.0 → 3.0
- 30+ scenarios to be updated
- Objective: Take advantage of BPM to simplify the message processing

Benefits:
- Reduced complexity of the scenario mapping schemes by using BPM processes
- Reduced ongoing maintenance effort
- Remove slow custom developed Gateway Program

Description:
- Use BPM in an Integration Scenario
- Receive Invoice Packets from MQ Series via JMS adapter
- Use BPM to do message split, data mapping + organize IDOC by company code
- Based on Receiver Determination and message type, send messages to its destinations via various adapters
Texas Instruments Scenario

SAP XI

BPM
- Data Mapping
- Invoice Split
- Organize IDOCs by Company Code

MQ SERIES

Invoice Package

JMS

JDBC Adapter

3rd Party Application

IDOC Adapter

Company Code

SAP Application

File Adapter

3rd Party Application
Objective:
- Synchronize data between SAP R/3 and a 3rd party system
- Use XI native BPM to synchronize messages
- Implement BPM in XI 2.0

Benefits:
- Process logic resides in middleware
- Leverage existing applications
- Eliminate custom developed code

Description:
- Use BPM to control data synchronization
- Receive data from SAP R/3 via IDoc adapter
- Use BPM to verify if the data is used for update an existing record or creating a new record
Use Cases

Agenda

- A2A and Adapters
- B2B and Industry Standards
- Business Process Management
- SAP Standard Solution
- Collecting and Distributing Receipt Data
- High Volume Processing
Objective:
- Use the SAP Inventory Collaboration Hub (ICH) to streamline the inventory replenishment process
- Offer the supplier an adaptive approach to the collaborative business process

Benefits:
- Leverage existing integration solution of SAP XI
- Adopt new internet standard such as XML
- Increases the accuracy and velocity of the supply chain
- Take advantage of the pre-delivered content and tight integration of SAP Solutions and SAP XI

Description:
- Use SAP XI as a gateway to communicate with other business systems
- Act as a component of SAP Supply Chain Management Solution
- Leverage Internet standards to bridge the gap between the SAP solution and the vendor’s backend system
SAP ICH Architecture (XI Perspective)

SAP XI Integration Server

- Integration Builder
  - Integration Directory
  - Integration Repository

- Application Logic
  - Proxy
  - Proxy Framework
  - Integration Engine as Sender/Receiver

- SAP Web AS
  - Proxy Generation of WSDL Interface Description

SAP Application

PROXY

3rd Party Application

XML

XML/SOAP

XML

IDX IN

IDX

SAP Web AS 6.20+

XML/

SOAP

IDX

IDX

SAP Application

PROXY

PROXY

SAP XI

SAP ICH Architecture (XI Perspective)
Supplier Managed Inventory With Purchase Order Creation

- **Demand/Inventory Data**
  - Create PO
  - Receive ASN and Update PO
  - Create POD

- **Vendor Generated Order Notification**
  - ORDRSP. ORDERS05

- **Despatched Delivery Notification**
  - DESADV DELVRY 03

- **Received Delivery Notification**
  - STPPOD DELVRY 03

- **Create PO**

- **Display Demand/Inventory Data**

- **Create PO**
  - in Web UI

- **Receive ASN and Update PO**

- **Display POD**

- **Replenishment Order Notification**

- **Create Sales Order**

- **Create Delivery**

**Systems:***
- **SAP R/3**
- **SAP XI**
- **SAP ICH**
- **Seller System**
Agenda

- Use Cases
  - A2A and Adapters
  - B2B and Industry Standards
  - Business Process Management
  - SAP Standard Solution
  - Collecting and Distributing Receipt Data
  - High Volume Processing
Cash Register Receipt Processing (SAP Retail Solution)

Objectives:

- Link POS Data from Cash Register to Retail Application for Accelerated, Strategic Decision Making and Greater Profitability.
- Improve decision making at all levels by providing retailers with convenient, fingertip access to up-to-the-minute, accurate, and reliable POS information.
- Link to a range of follow-on processes, such as inventory management, financials, billing, and credit card settlement.

Benefits:

- The solution enables POS processing and analytics features tailored to a variety of roles—from store managers to replenishment planners.
- Includes integrated sales audit capabilities to ensure that all data is complete and accurate.

Description:

- Process Cash Register Receipt data in high volumes (tested at over 60 million receipt items / hour)
- Return ARTS (Association of Retail Technical Standards) compliant Master Data to POS system.
POS system delivers aggregated Receipt data - 1,400 receipts @ 10 articles (7 MB) - In ARTS XML Format

XML Receipt Data
XML Master Data

XI Throughput = Over 60 Million Aggregated Line Items per Hour

SAP XI

SAP FOR RETAIL

SAP POS DM / BW

POS Inbound Processing Engine (PIPE)

PIPE OUTBOUND INTERFACE

TLOG (Transaction DB)

Receipt Cube
Week Cube
Month Cube

POS INTERFACE

Multi-Step Replenishment

IDOC WP-PLU

XML Master Data

SAP XI

RFCAPI

PROXY

IDX IN

POS system delivers aggregated Receipt data - 1,400 receipts @ 10 articles (7 MB) - In ARTS XML Format

XML Receipt Data
XML Master Data

XI Throughput = Over 60 Million Aggregated Line Items per Hour

SAP XI

SAP FOR RETAIL

SAP POS DM / BW

POS Inbound Processing Engine (PIPE)

PIPE OUTBOUND INTERFACE

TLOG (Transaction DB)

Receipt Cube
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POS INTERFACE

Multi-Step Replenishment

IDOC WP-PLU

XML Master Data
Use Cases

Agenda

- A2A and Adapters
- B2B and Industry Standards
- Business Process Management
- SAP Standard Solution
- Collecting and Distributing Receipt Data
- High Volume Processing
Objectives:

- Integrate a large number of legacy systems, most based on mainframe, with SAP solution.
- Support approximately 1000 users to process 50 000 – 60 000 messages per hour.
- Leverage ABAP proxies to make native calls between middleware and SAP system where possible.

Benefits:

- Efficient processing of large volume of messages.
- Using central hub to integrate SAP and non-SAP systems saves money and delivers lower TCO.

Description:

- Use JMS adapter to link legacy systems via MQSeries with SAP systems using IDOC.
- Use JMS adapter to link legacy systems via MQSeries with SAP systems using synchronous BAPI via ABAP proxies.
Israeli Army Scenario

Transaction Volume: 30 000 + transactions per day

Pre-GoLive volume test: 1 200 000 transactions per day

Planned volume in 3 years: 6 000 000 transactions per day
SAP Exchange Infrastructure is helping global companies solve real-world problems every day, processing millions of messages in thousands of scenarios worldwide.
Conclusion

With integrated content, rapid interface development for SAP and non-SAP systems, built-in Business Process Management, a range of adapters from SAP and the Partner Ecosystem, a robust processing engine, and centralized monitoring, SAP Exchange Infrastructure is a solid platform for all integration scenarios in the real world.