• Our Business Scenario/Process
• Chosen Enterprise Services
• Business Rule(s)
• Diagrams
• Additional Implementations
• Demonstration
• Improvements to the Business Process
• Learning Outcomes
Quick Background

GSK Pharmaceutical company selling the DRUG ‘Relenza’ to hospitals, clinics and pharmacies.
Our Business Scenario for using SAP NetWeaver
Business Process

Logistics Coordinator
- Determine Delivery Schedule and route
- Create Outbound Delivery
- Pick Materials on Delivery Note

Logistics Manager
- Post Goods Issue
- Create invoice for Customer

Pre-Sales
- Sales Order Processing
- Inventory Sourcing
- Delivery
- Billing
- Payment
Enterprise Business Solutions

Business Process

Logistics Coordinator
- Determine Delivery Schedule and route
- Create Outbound Delivery
- Pick Materials on Delivery Note

Logistics Manager
- Post Goods Issue
- Create invoice for Customer

Sales Order Processing → Inventory Sourcing → Delivery → Billing
Enterprise Services Used

1. Find Sales Order Basic Data by Elements
2. Read Sales Order_v2
3. Read Customer Basic Data
4. Create Outbound Delivery with Reference to Sales Order
5. Create Goods Movement with Reference_V1
6. Create Customer Invoice with Reference
7. Read Customer Invoice
<table>
<thead>
<tr>
<th>Sales Organization</th>
<th>ID</th>
<th>DeliveryApproval/quantity</th>
<th>DeliveryApproval/deliveryApproval = {boolean}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>SA01</td>
<td>&gt; 500</td>
<td>True</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;= 500</td>
<td>False</td>
</tr>
<tr>
<td>Clinic</td>
<td>SA02</td>
<td>&gt; 150</td>
<td>True</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;= 150</td>
<td>False</td>
</tr>
<tr>
<td>Pharmacies</td>
<td>SA03</td>
<td>&lt; 200</td>
<td>True</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;= 200</td>
<td>False</td>
</tr>
</tbody>
</table>
eSOA Model

registry

CE

Download WSDL

Bind (Invoke) (SOAP)

ERP (633)

provider

Consumer

Delivery Scheduling Application

Publish WSDL

Deployment

**Development Components**

1. Process Development
   
   [http://demo.sap.com/gsk/sales/pr/pm](http://demo.sap.com/gsk/sales/pr/pm)

2. Visual Composer
   

3. Rules
   

4. Composite Service
   

SAP NetWeaver CE 7.2

**SAP ERP (633)**

Enterprise Services
DEMO using SAP Netweaver
Delivery Scheduling Process

Logistics Coordinator

Sales Order
Delivery Scheduling

Acknowledgement Required

Logistics Manager

Check Delivery Quantity

Acknowledgement Approved

Acknowledge Delivery Requirements

Delivery Personnel
and Customer

Fulfill Delivery

Confirm Receipt of Invoice

Acknowledgement Not Required

ERP

Create Outbound Delivery

Create Billing Invoice
Process Context

SalesOrderType

- OrderID: string
- CreationDate: date
- ProductName: string
- ProductQuantity: int
- NetAmount: decimal
- RequestedDeliveryDate: date
- GSKSalesOrg: string
- BuyerPartyID: int
- BuyerName: string
- BuyerPostalCode: string
- DeliveryApprovalNecessary: boolean
- DeliveryApprovalOutcome: boolean
- OutBoundDeliveryID: string
- InvoiceID: string
- DeliveryCharges: decimal
Retrieve all the undelivered sales order and choose one.

1. Retrieve customer’s address
2. Retrieve the particular sales order details

• Confirm delivery for goods

• Combine the customer and sales information
Delivery Scheduling Process

Sales Order Delivery Scheduling

Logistics Coordinator

Acknowledgement

Logistics Manager

Check Delivery Quantity

Acknowledgement Approved

Customer

Delivery Personnel

Due/Required

Acknowledgement Required

ERP

Create Outbound Delivery

Create Billing Invoice

Customer

Confirm Receipt of Invoice

Fulfill Delivery

Acknowledgement Not Required
Delivery Scheduling Process

Logistics Coordinator
- Sales Order Delivery Scheduling

Logistics Manager
- Check Delivery Quantity
- Acknowledge Delivery Requirements
  - Acknowledgement Approved

Delivery Personnel and Customer
- Acknowledgement Not Required
  - Fulfill Delivery
  - Confirm Receipt of Invoice

ERP
- Create Outbound Delivery
- Create Billing Invoice

Acknowledgement Required
Delivery Scheduling Process

Logistics Coordinator
- Sales Order Delivery Scheduling

Acknowledgement

Logistics Manager
- Check Delivery Quantity
- Acknowledge Delivery Requirements
  - Acknowledgement Approved

Delivery Personnel and Customer

ERP
- Create Outbound Delivery
- Create Billing Invoice
- Confirm Receipt of Invoice

Acknowledgement Not Required
Delivery Scheduling Process

Logistics Coordinator
- Sales Order Delivery Scheduling

Check Delivery Quantity
- Acknowledgement Approved
  - Acknowledge Delivery Requirements

Logistics Manager

Delivery Personnel and Customer
- Acknowledgement Not Required
  - Fulfill Delivery
  - Confirm Receipt of Invoice

ERP
- Create Outbound Delivery
  - Create Billing Invoice
Delivery Scheduling Process

Logistics Coordinator
- Sales Order Delivery Scheduling
- Acknowledgement Required

Logistics Manager
- Check Delivery Quantity
- X
- Acknowledge Delivery Requirements

- Acknowledgement Approved

Delivery Personnel and Customer
- Fulfill Delivery
- Confirm Receipt of Invoice
- Acknowledgement Not Required

ERP
- Create Outbound Delivery
- Create Billing Invoice

Acknowledgement Required

Check Delivery Quantity

Fulfill Delivery

ERP
**Delivery Scheduling Process**

1. **Logistics Coordinator**
   - Sales Order Delivery Scheduling

2. **Logistics Manager**
   - Check Delivery Quantity
     - Acknowledgement Approved
       - Acknowledge Delivery Requirements

3. **Delivery Personnel and Customer**
   - Acknowledgement Not Required
   - Fulfill Delivery
   - Confirm Receipt of Invoice

4. **ERP**
   - Create Outbound Delivery
   - Create Billing Invoice
Composite Service

Created a composite enterprise service that comprises of 3 enterprise services

1. Create Goods Movement with Reference V1
2. Create Customer Invoice with Reference
3. Read Customer Invoice

- The goods have been delivered to the customer. This will allow ‘Post Goods Issue’.
- After ‘Post Goods Issue’, the invoice will be created.
- After the invoice is created, the invoice will be converted to a PDF form.
1. Create Goods Movement with Reference_V1
2. Create Customer Invoice with Reference
3. Read Customer Invoice
1. Composite Service using Service Composer
   • Implemented 3 Enterprise Services together

2. Offline Forms using LIFECYCLE DESIGNER
   • Delivery Confirmation
   • Customer Invoice

3. Google Maps
   • Route planning
Improving the business process

**Today’s current process**

Display Sales Order
VA03

Create Outbound Delivery, Pick and Post Goods Issue
VL01N and VL02N

Invoicing
VF04

Going to different screens to do the postings

**With SAP Composite Application**

Display Sales Order

Create Outbound Delivery, Pick and Post Goods Issue

Invoicing

Flexible modeling of process chain and more user friendly
Improvements

Optimized, customer tailored user interface to provide comprehensive information at one glance

Warehouse

Reduced time to check for uncompleted orders
Learning Outcomes

- User Interface
- Flexibility
- Heterogeneity
- Data Consistency

eSOA
thank you thank you thank you thank you thank you thank you

FOR THE ENDLESS SUPPORT AND HELP FROM MORNING TO NIGHT FOR THE PAST FEW DAYS. FROM ALL FOUR OF US
Questions and Answers