

14.–17. 09. 2009  
in Nürnberg



# Herbstcampus

Wissenstransfer  
par excellence

## Bushaltestelle

Einführung in den JBoss ESB

Bernd Rücker

camunda services GmbH



**camunda**

**The Business Process Company**

**Einführung in den JBoss ESB**

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Blog: [www.bpm-guide.de](http://www.bpm-guide.de)



# camunda services GmbH

## Ganzheitliches BPM

Beratung

Seminare

Process Hosting

Standort: Berlin

Mitarbeiter: 7





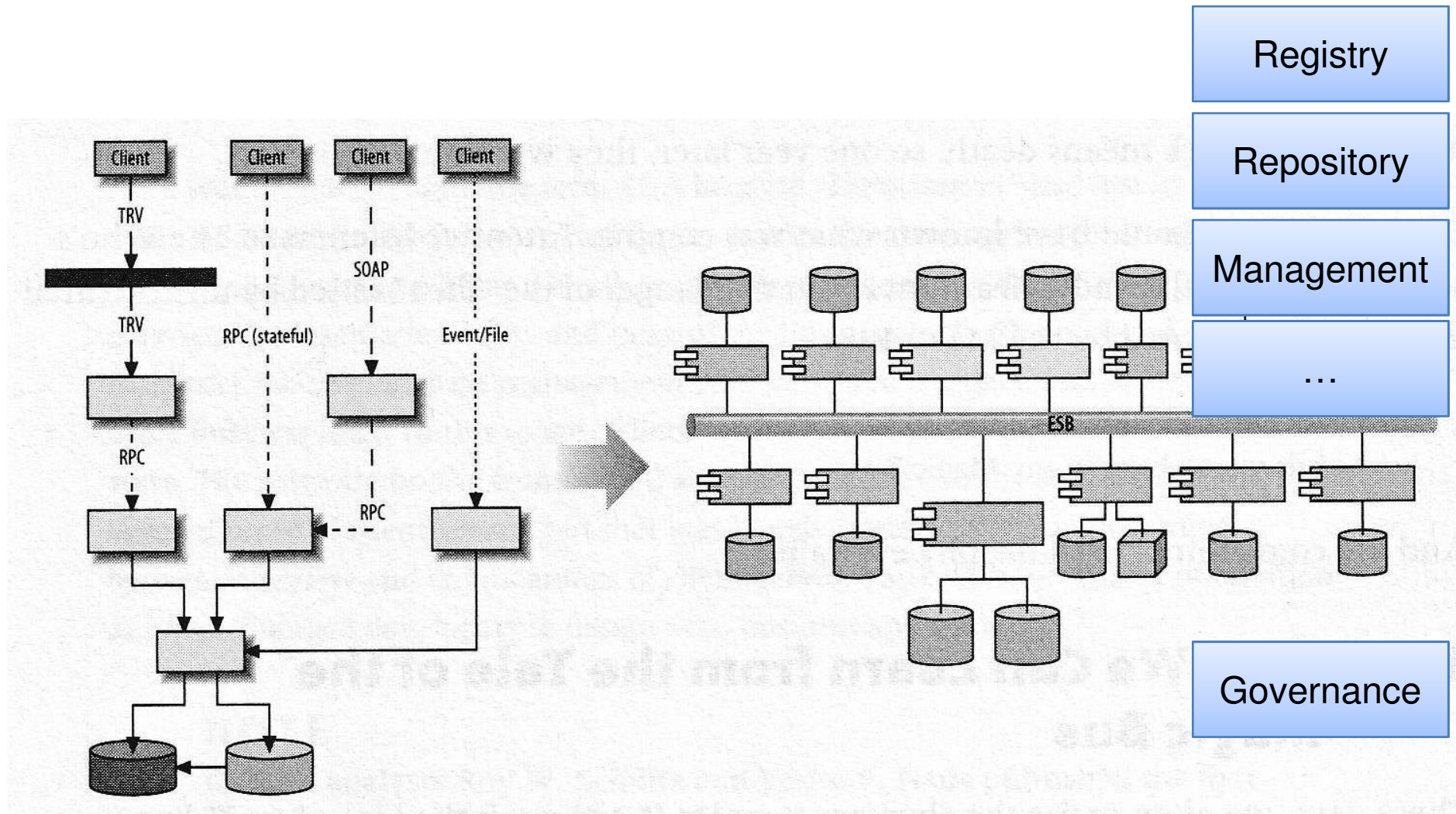
Unser Problem heute:  
Integration

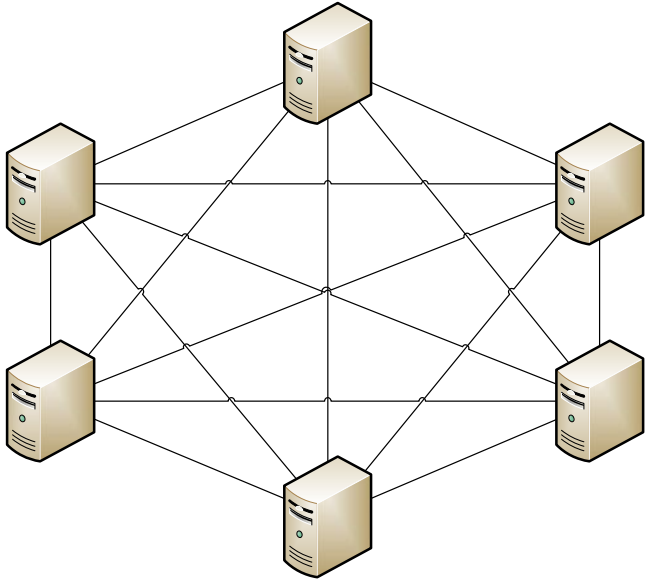


Nicht nur ein technisches Problem!

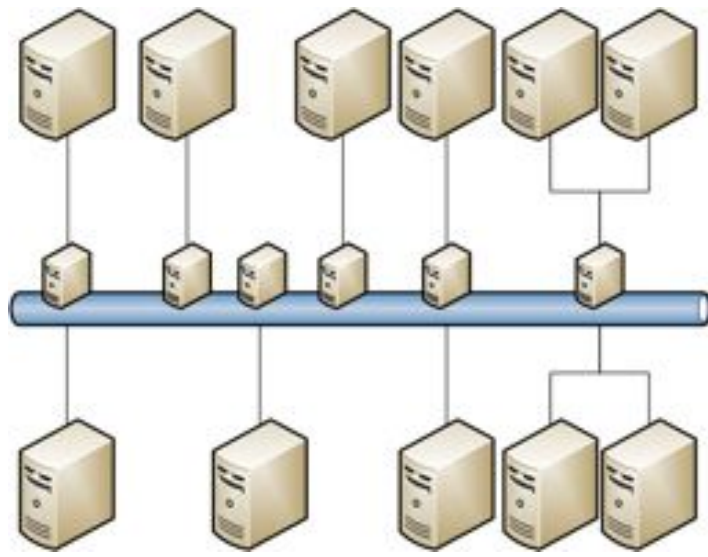
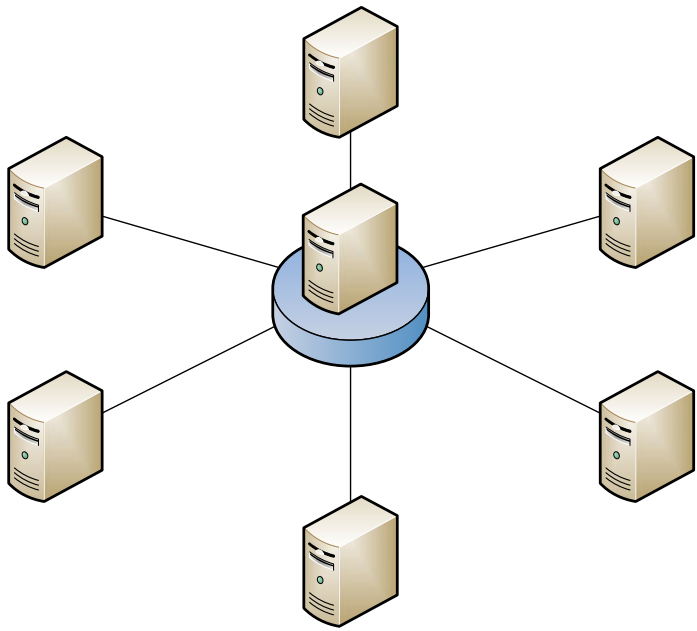


Also...





Von Point-To-Point  
über Hub & Spoke  
zu ESB





# Integrationsansätze

**Good** Separation  
between integration  
and application logic

Traditional EAI

ESB

**No** Separation  
between integration  
and application logic

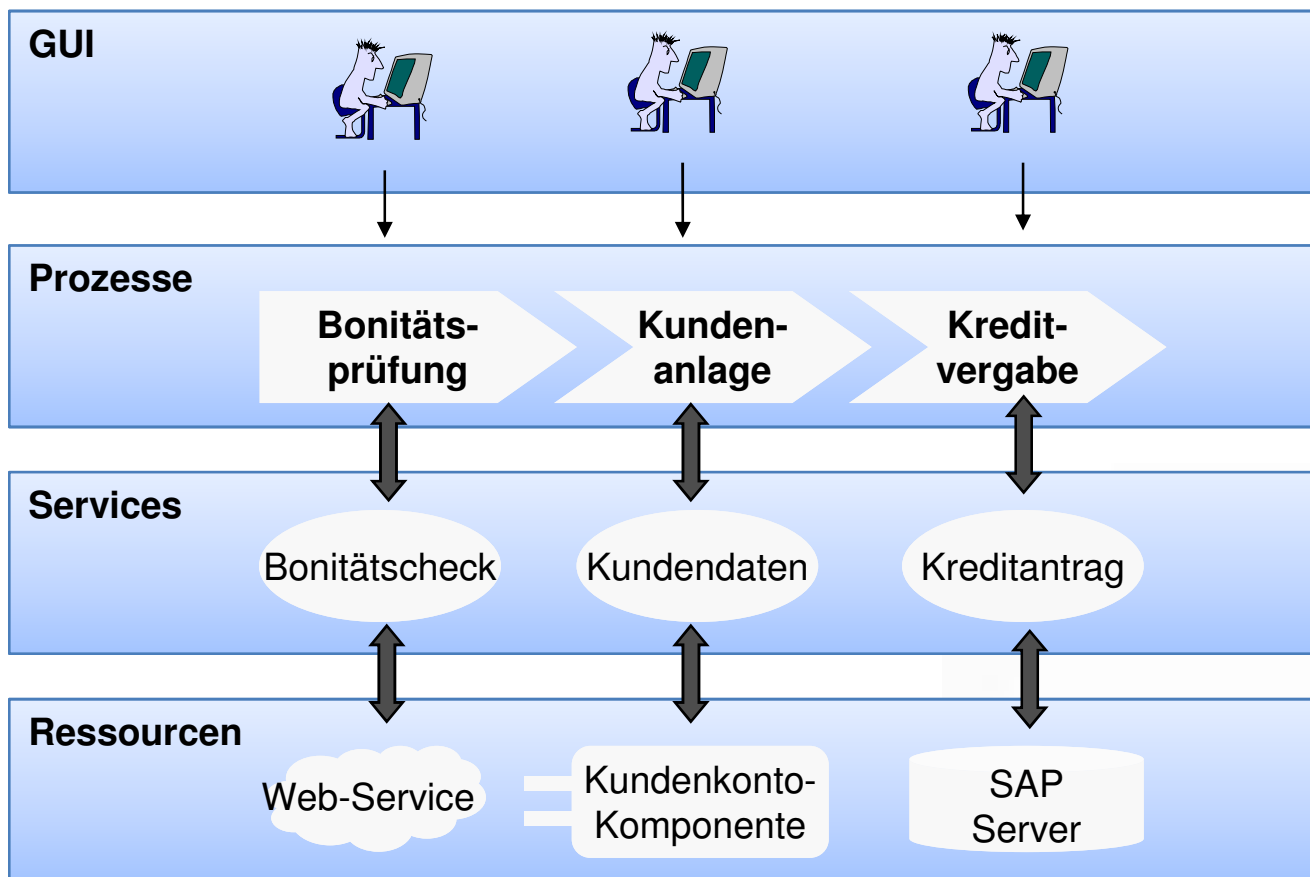
Application Server

Message oriented  
Middleware (MOM)  
/ Custom code

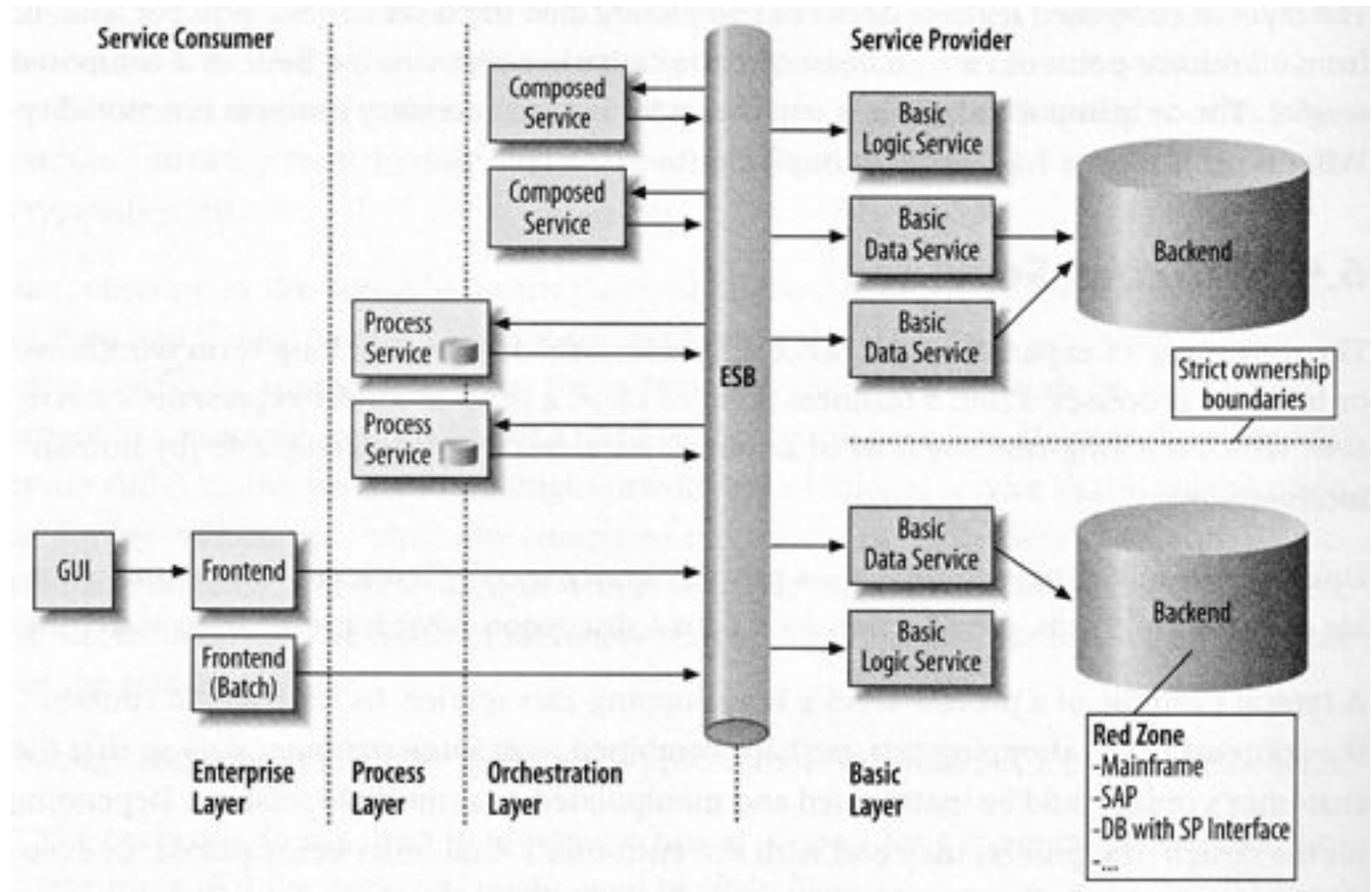
Hub & Spoke  
Integration

Distributed  
Integration

# SOA-Vision



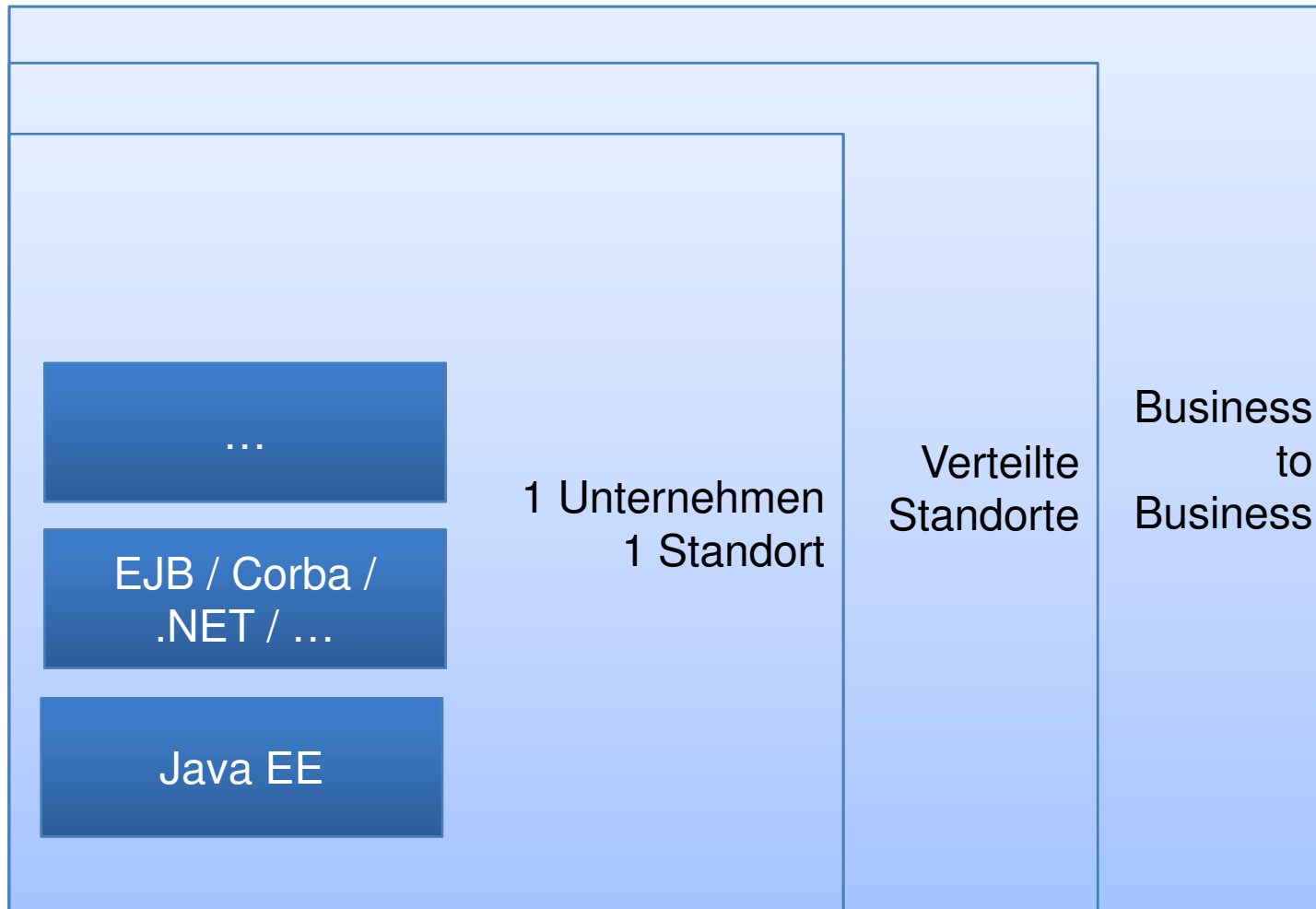
# Der ESB und die Services



Quelle: Nicolai Josuttis



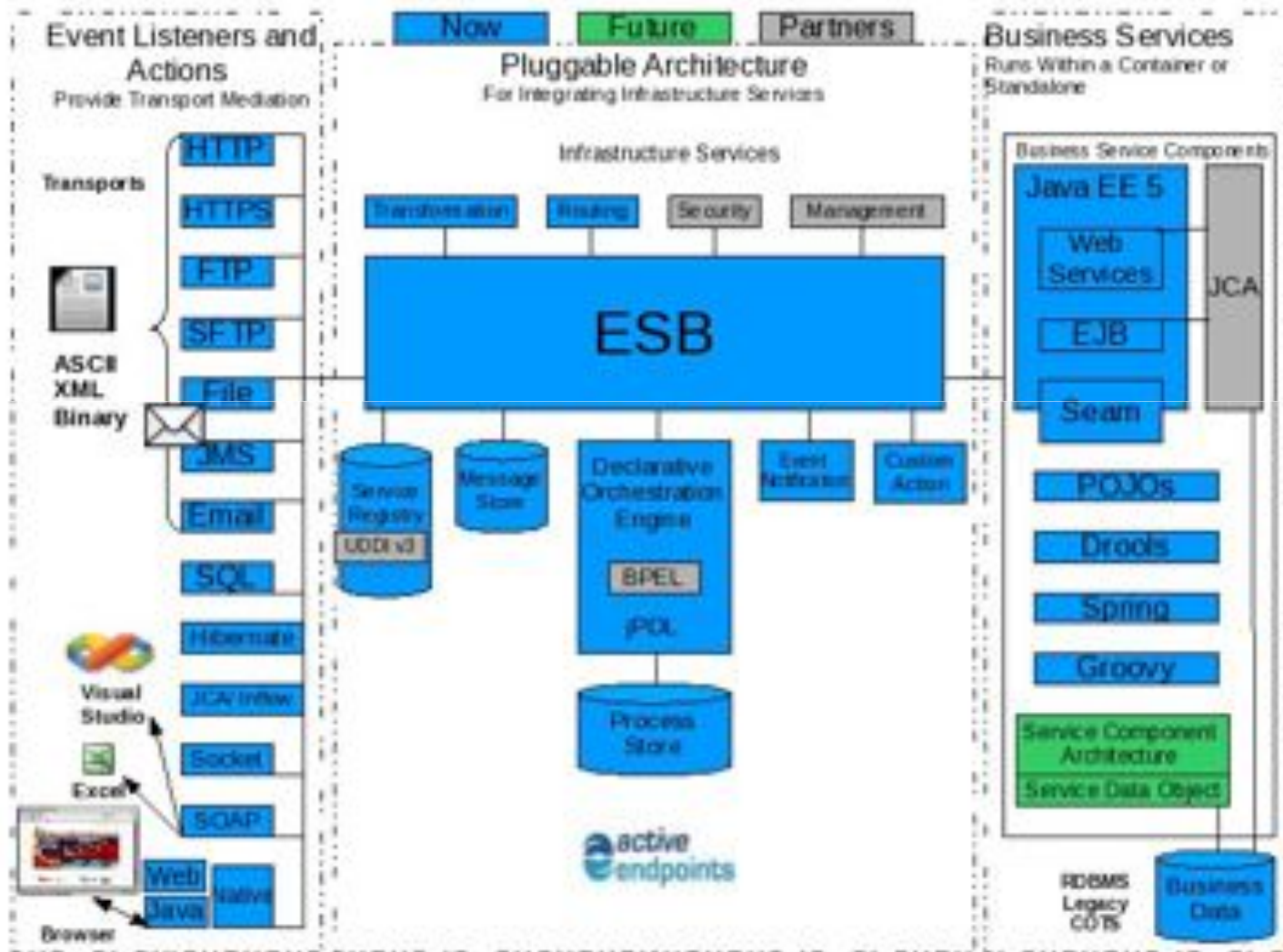
# Auf den Kontext kommt es an





JBoss ESB:  
Spaß oder Schlitterpartie?

# JBoss ESB: Spaß...





# ...UND Schlitterpartie

The image displays four overlapping screenshots of Internet Explorer windows, each showing a different XML configuration file for a JBoss ESB application. The windows are arranged in a collage, with some overlapping others.

- Top-left window:** Shows the `boss-esb.xml` file. It defines providers for file-based and JBoss Messaging, and services for file gateways and JMS listeners.
- Top-right window:** Shows the `deployment.xml` file. It contains a `<jbossesb-deployment>` element with dependencies on other ESB modules and queues.
- Bottom-left window:** Shows the `deployment.xml` file (partially overlapping the top-right one). It details the configuration of actions, including `readFileContent` and `startProcessInstance`.
- Bottom-right window:** Shows the `mq-queue-service.xml` file. It defines JMS queues for `CreateCaseQueue` and `CreateCaseGWQueue`.

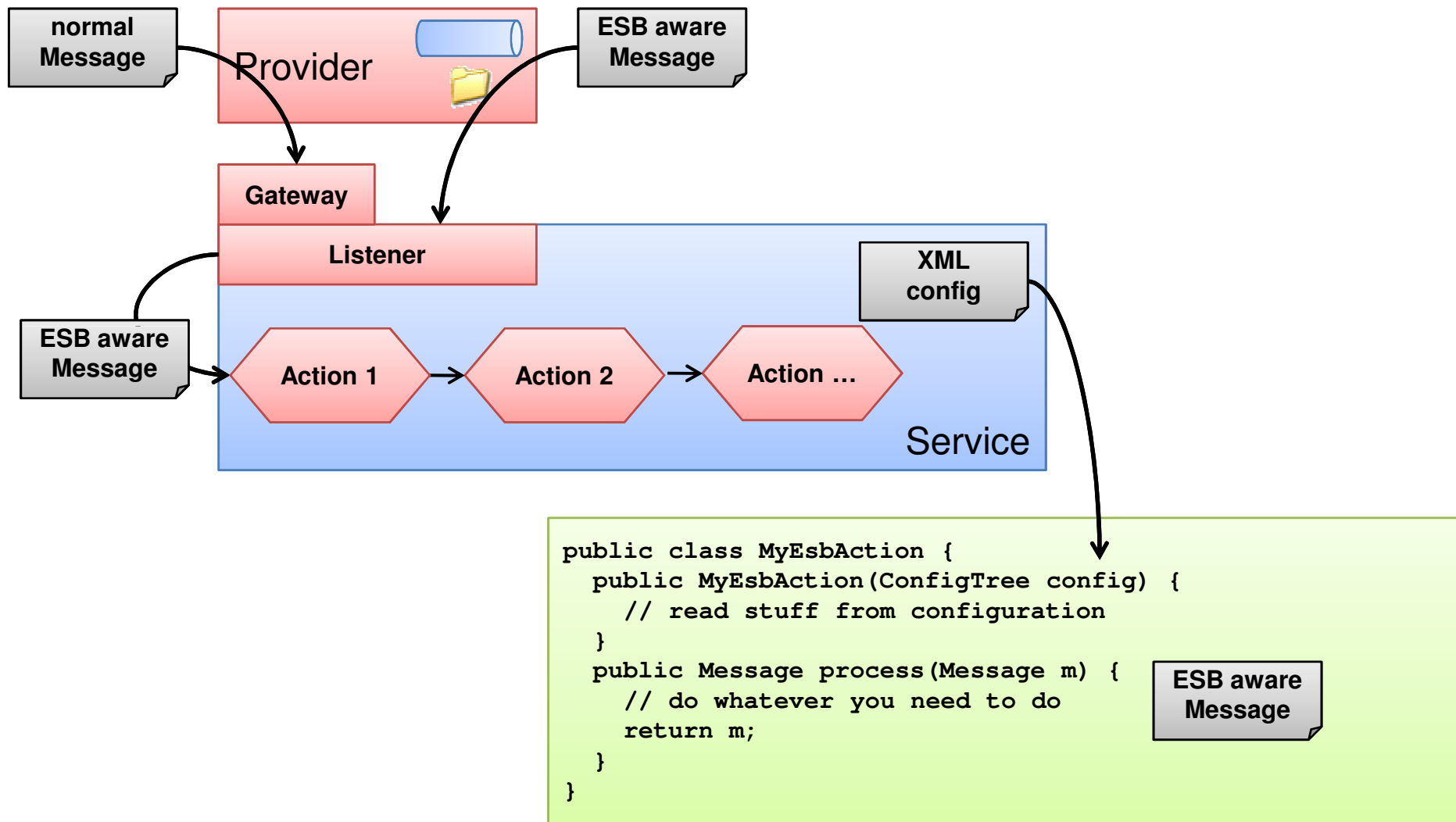
The XML snippets are as follows:

```
<?xml version="1.0" encoding="UTF-8" ?>
<jbossesb xmlns="http://anonsvn.labs.jboss.com/labs/jbossesb/trunk/product/etc/schemas/xml/jbossesb-1.0.1.xsd"
parameterReloadSecs="5">
  <providers>
    <fs-provider name="firstFSProvider">
      <fs-bus busid="CreateCaseFileGatewayProvider">
        <fs-message-filter directory="@test.dir@\\input" input-suffix=".txt" work-suffix=".work" post-delete="false" post-directory="@test.dir@\\output" post-suffix=".done" error-delete="false" error-directory="@test.dir@\\error" error-suffix=".error" />
      </fs-bus>
    </fs-provider>
    <jms-provider name="JBossMessaging" connection-factory="ConnectionFactory">
      <jms-bus busid="CreateCaseJmsGatewayProvider">
        <jms-message-filter dest-type="QUEUE" dest-name="CreateCaseGWQueue" />
      </jms-bus>
    </jms-provider>
  </providers>
  <services>
    <service category="EsbShowcase">
      <listeners>
        <fs-listener name="FileGateway">
          <jms-listener name="ESBListener" />
        </fs-listener>
      </listeners>
      <actions>
        <action name="readFileContent" class="com.camunda.esbex.esbaction.ReadFileContent" />
        <action name="***** FilePickupService - DUMP 1 *****" class="org.jboss.soa.esb.actions.SystemPrintIn" />
        <action name="***** FilePickupService - DUMP 2 *****" class="org.jboss.soa.esb.actions.SystemPrintIn" />
        <action name="startProcessInstance" class="org.jboss.bpm.integration.action.StartProcessInstance" />
        <action name="***** FilePickupService - DUMP 3 *****" class="org.jboss.soa.esb.actions.SystemPrintIn" />
      </actions>
    </service>
  </services>
</jbossesb>
```

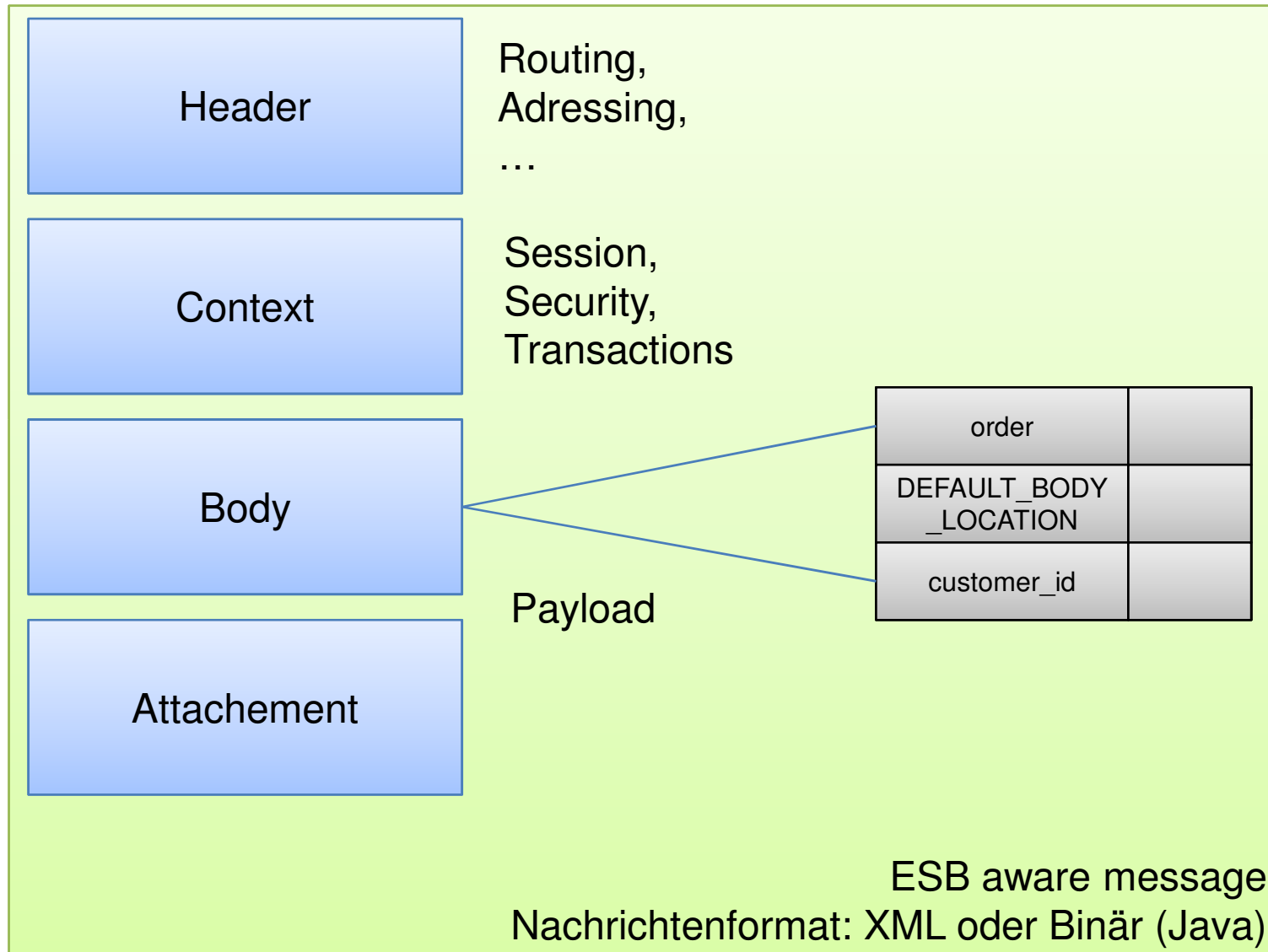
```
<?xml version="1.0" encoding="UTF-8" ?>
<jbossesb-deployment>
  <!-- we depend on the esb deployed esb module in this case -->
  <depends>jboss.esb:deployment=jbpm.esb</depends>
  <!-- and the queues, of course -->
  <depends>jboss.esb:destination:service=Queue,name=CreateCaseQueue</depends>
  <depends>jboss.esb:destination:service=Queue,name=CreateCaseGWQueue</depends>
</jbossesb-deployment>
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<server>
  <mbean code="org.jboss.mq.server.jmx.Queue" name="jboss.esb.destination:service=Queue,name=CreateCaseQueue">
    <depends optional-attribute-name="DestinationManager">jboss.mq:service=DestinationManager</depends>
  </mbean>
  <mbean code="org.jboss.mq.server.jmx.Queue" name="jboss.esb.destination:service=Queue,name=CreateCaseGWQueue">
    <depends optional-attribute-name="DestinationManager">jboss.mq:service=DestinationManager</depends>
  </mbean>
</server>
```

# Services = Listener + Action Pipeline



# ESB aware messages





ESB ist Message  
oriented Middleware

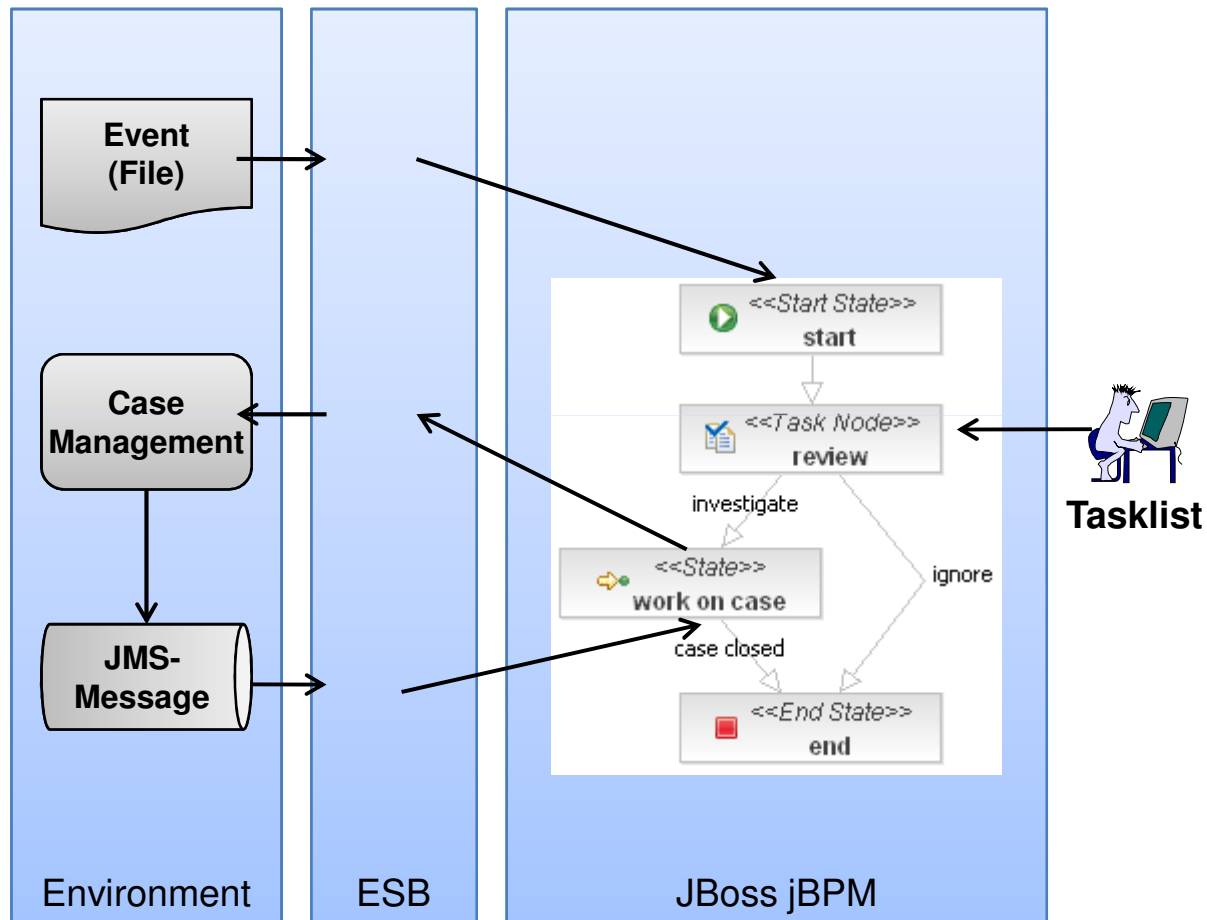
Lose Kopplung!



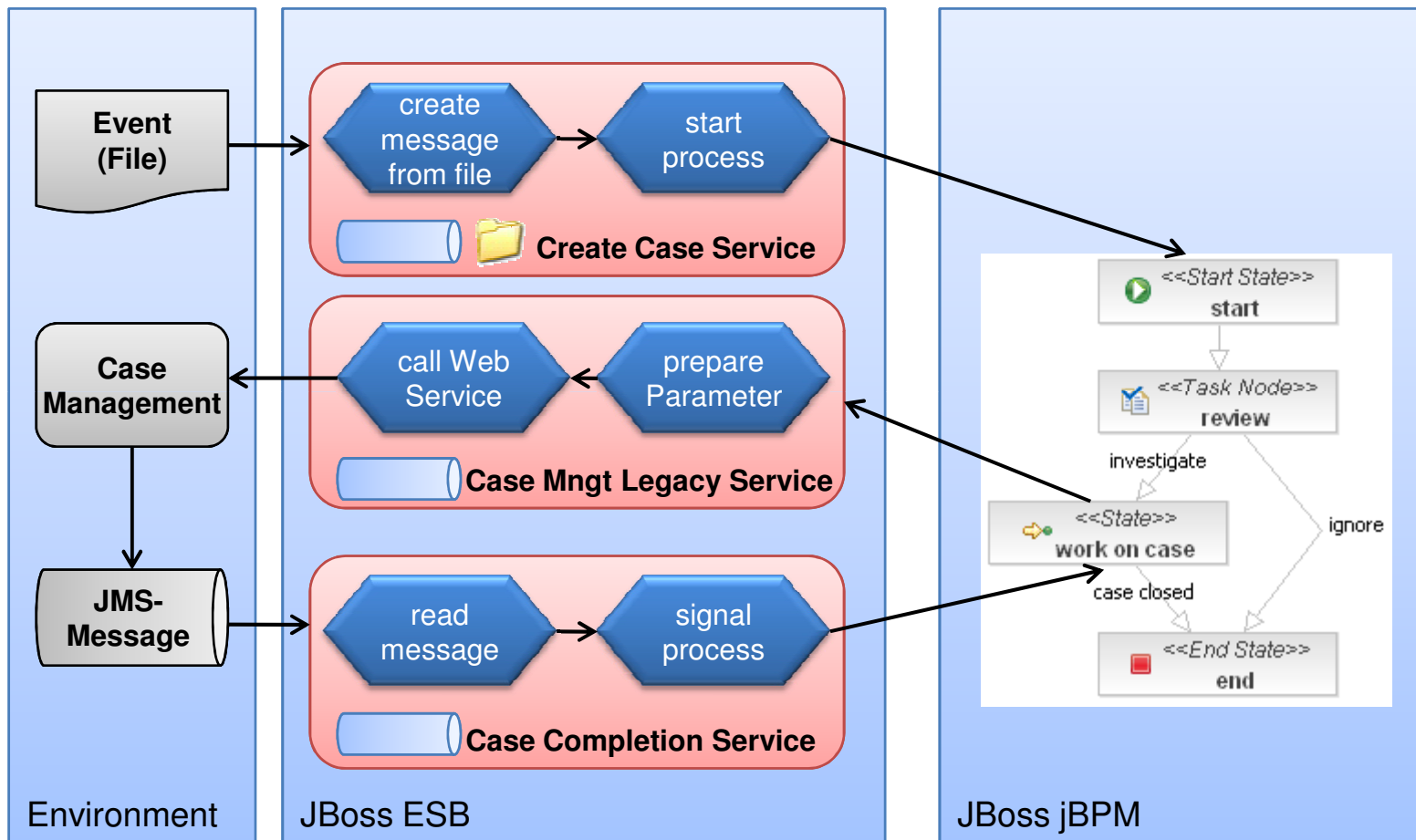
Starbucks - Die Welt  
ist asynchron!



# Beispiel aus dem JavaMagazin

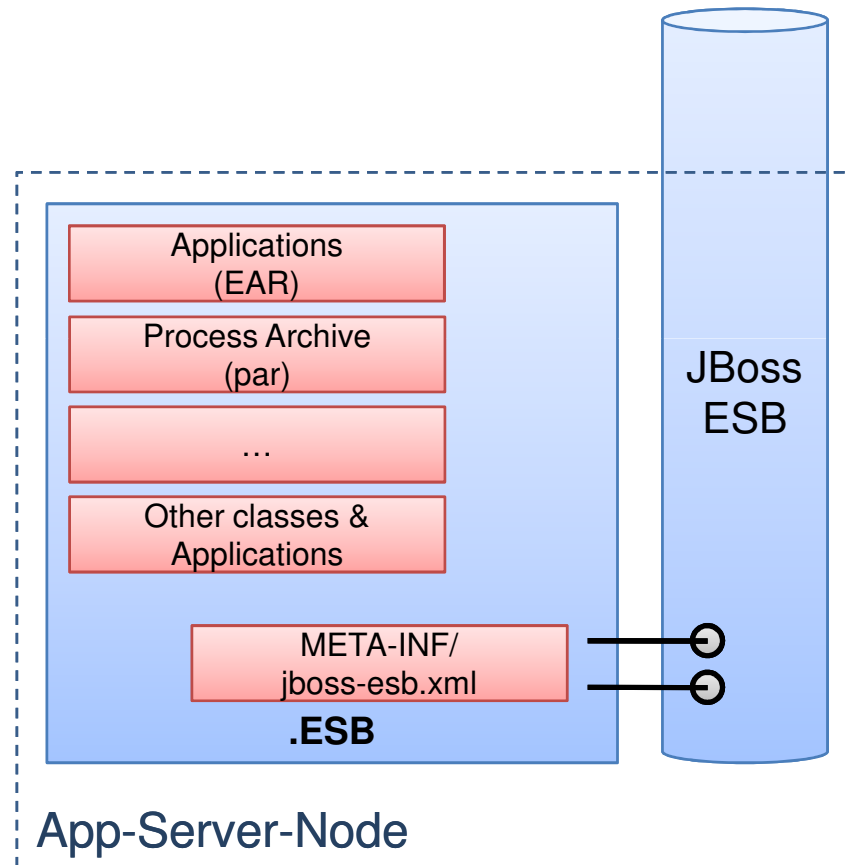


# Notwendige Services im JBoss ESB

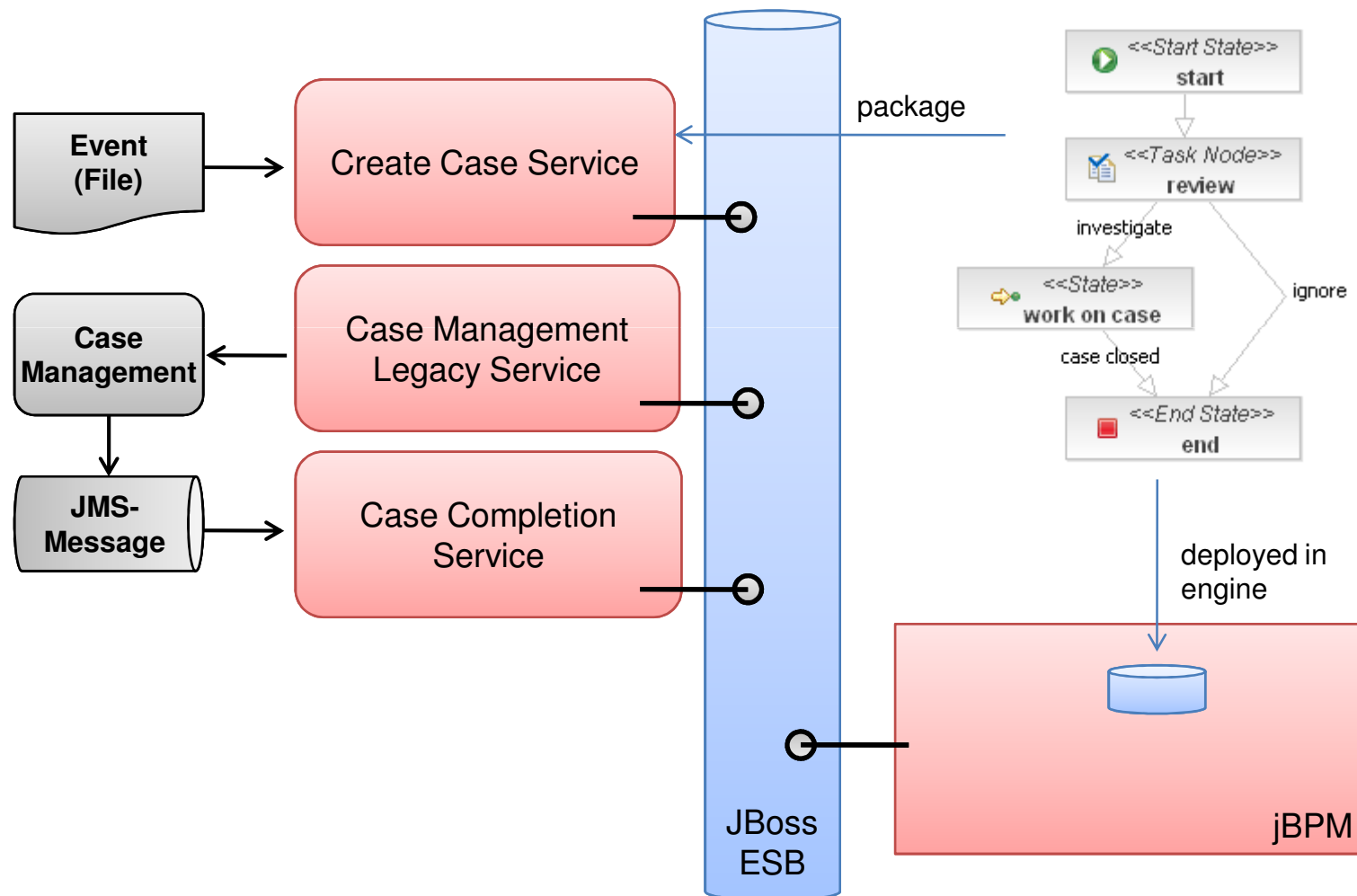




# Packaging des Service



# Packaging im Überblick



Demo



Das  
Produkt:  
JBoss ESB

Open Source (LGPL)

Teil der JBoss SOA Platform

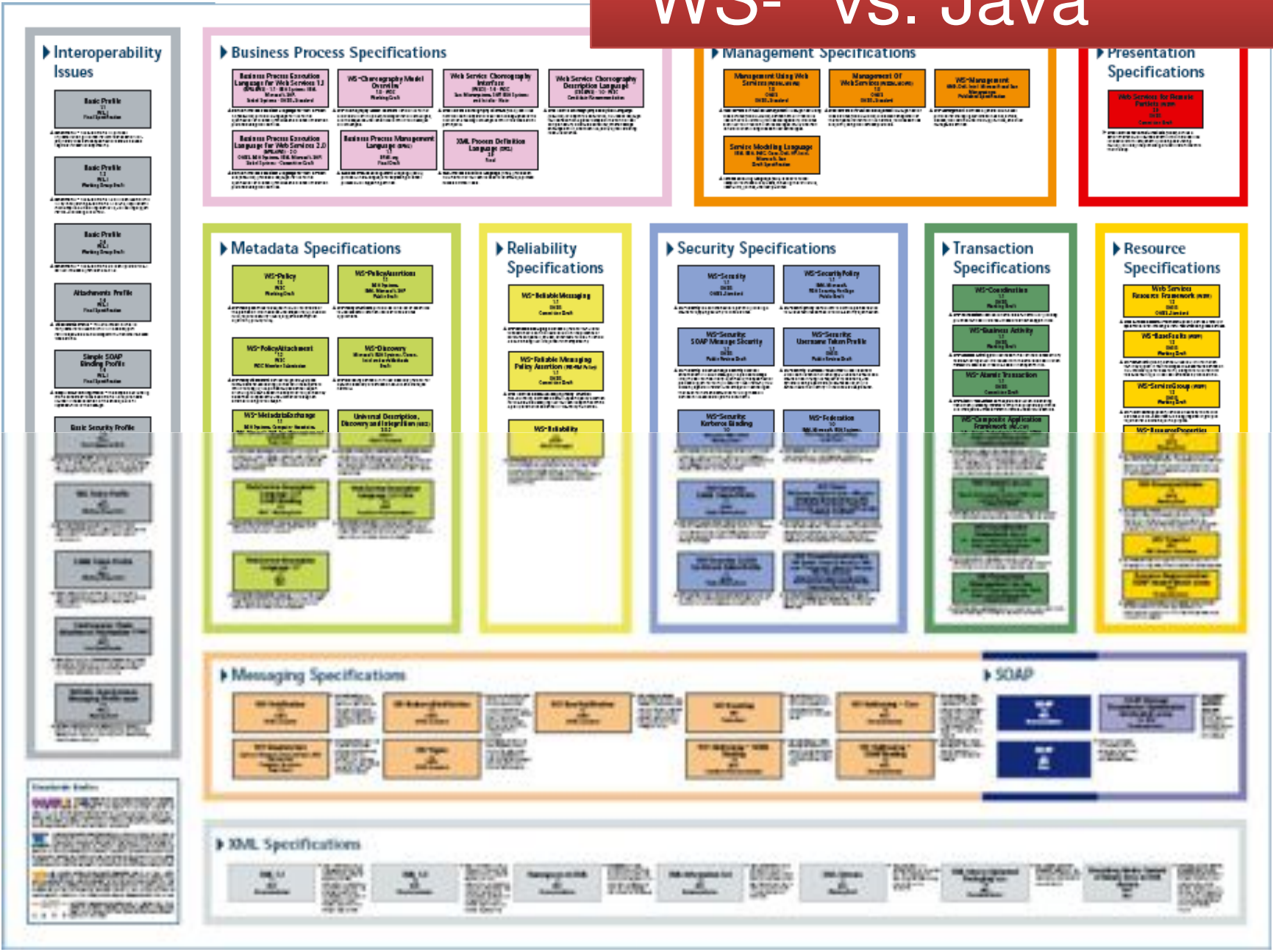
Entwickelt als Rosetta ESB bei  
Aviva Canada (große Versicherung)

Aktuell Version 4.6





# WS-\* vs. Java



<http://www.innoq.com/resources/ws-standards-poster/>

# Boardmittel

Data Transformation



BPM / Orchestration



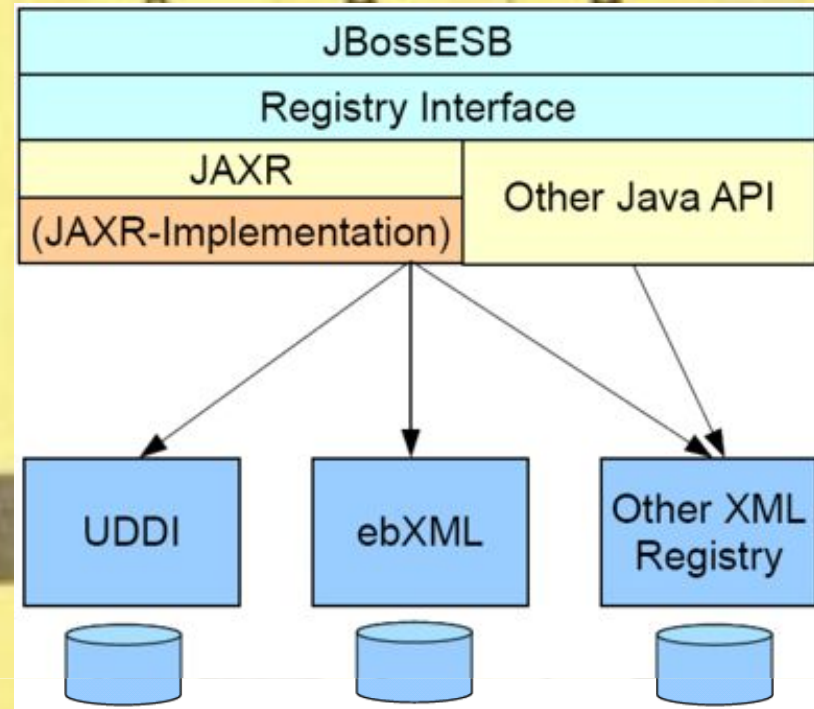
Scripting, ...

Content Based Routing /  
Business Rule Services

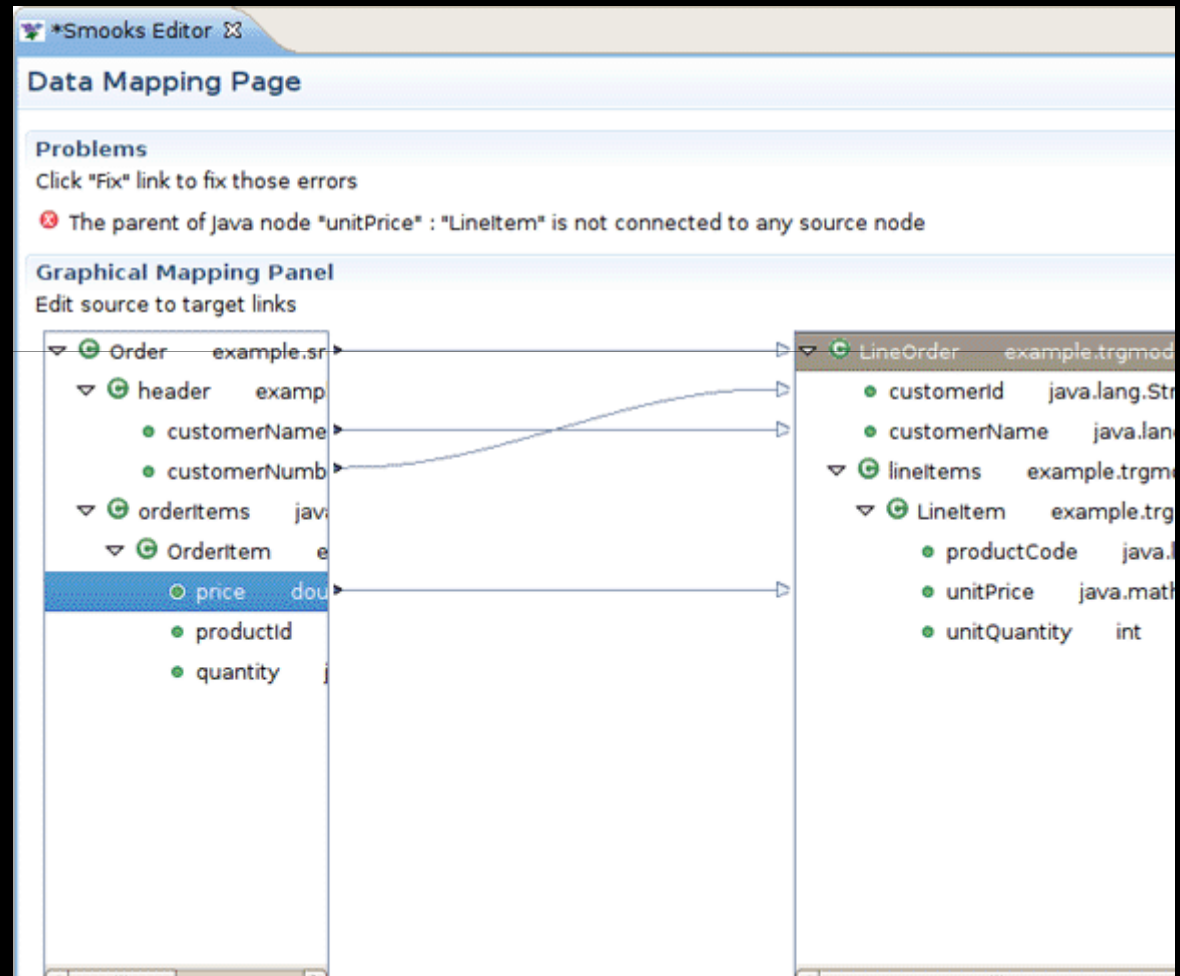
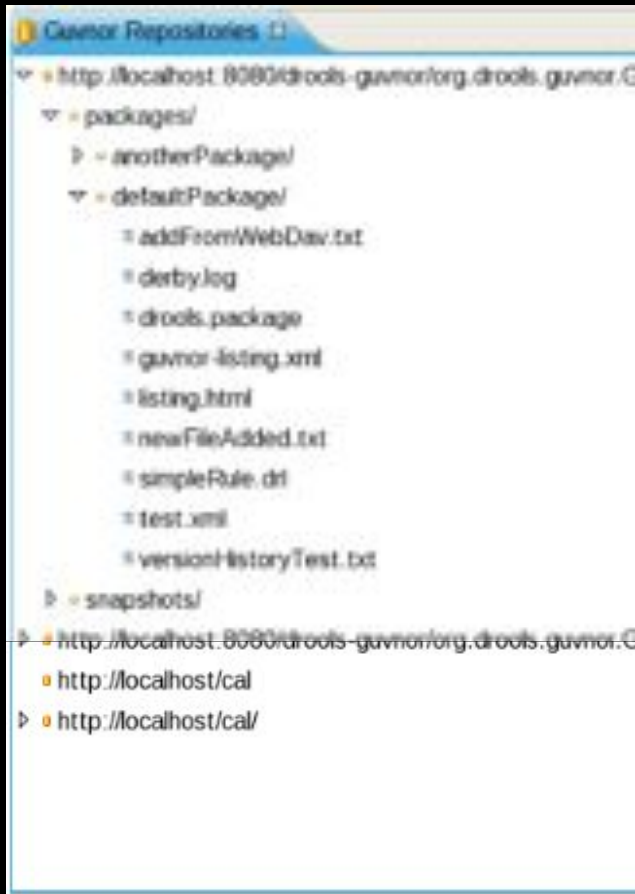


SOAP, EJB3, ...

# Registry

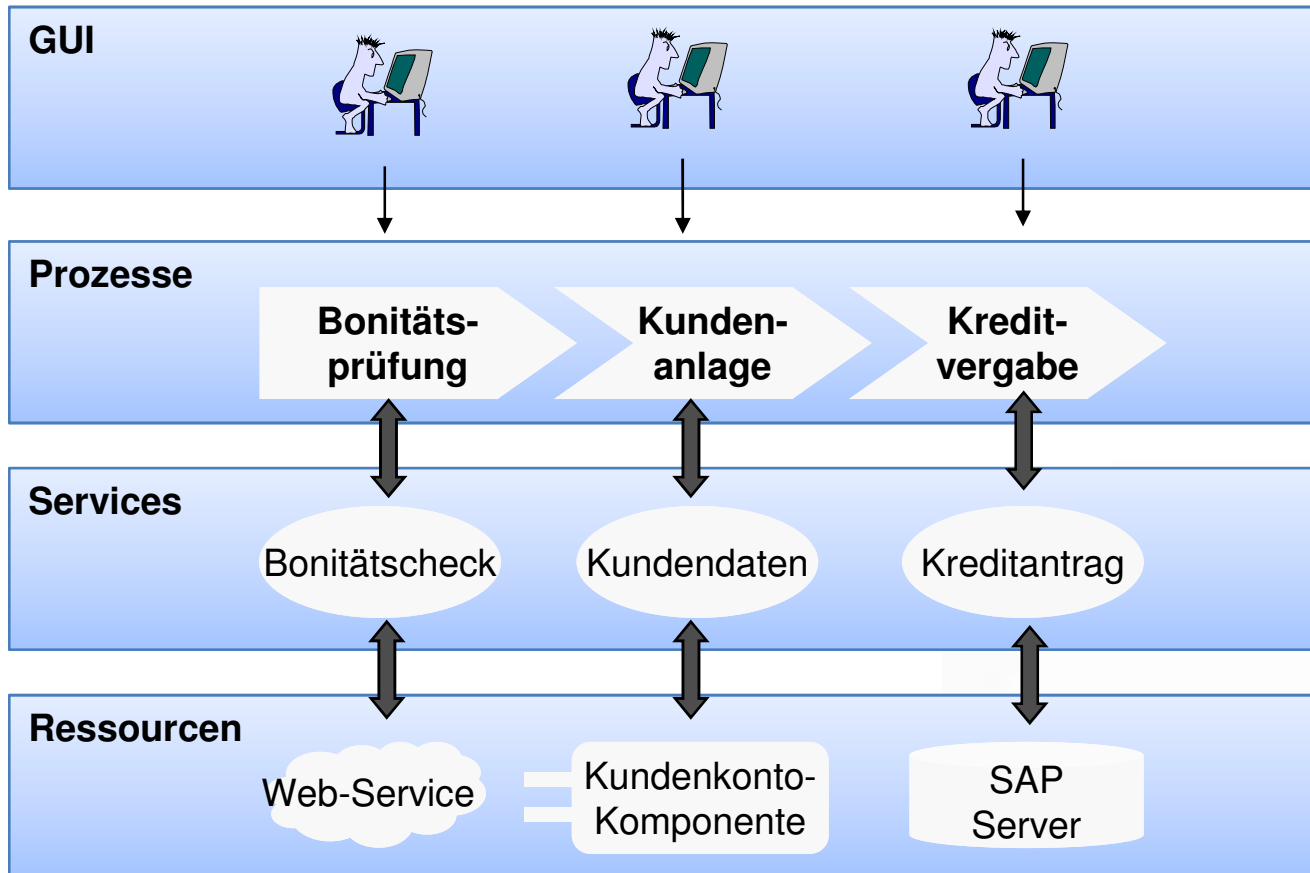


# JBoss Tools





# BPM & SOA – Blueprint & Vision





LEGO

100% ORIGINAL LEGO

REGION ÄNDERN



Registrieren  
Anmelden

# PRODUKTE



VORWÄRTS



## DIE HITS



- BIONICLE
- AGENTS
- STAR WARS
- INDIANA JONES
- RACERS
- CITY
- TECHNIC

## TEU



- Kampf im Hurlflugler
- Baustraße
- Kristallkammer
- Quad Bike
- Desert Challenge
- Großes Piratenschiff
- Baupfad für Mädchen
- Frachthubschrauber



# Steuern oder mitspielen?

## Orchestrierung



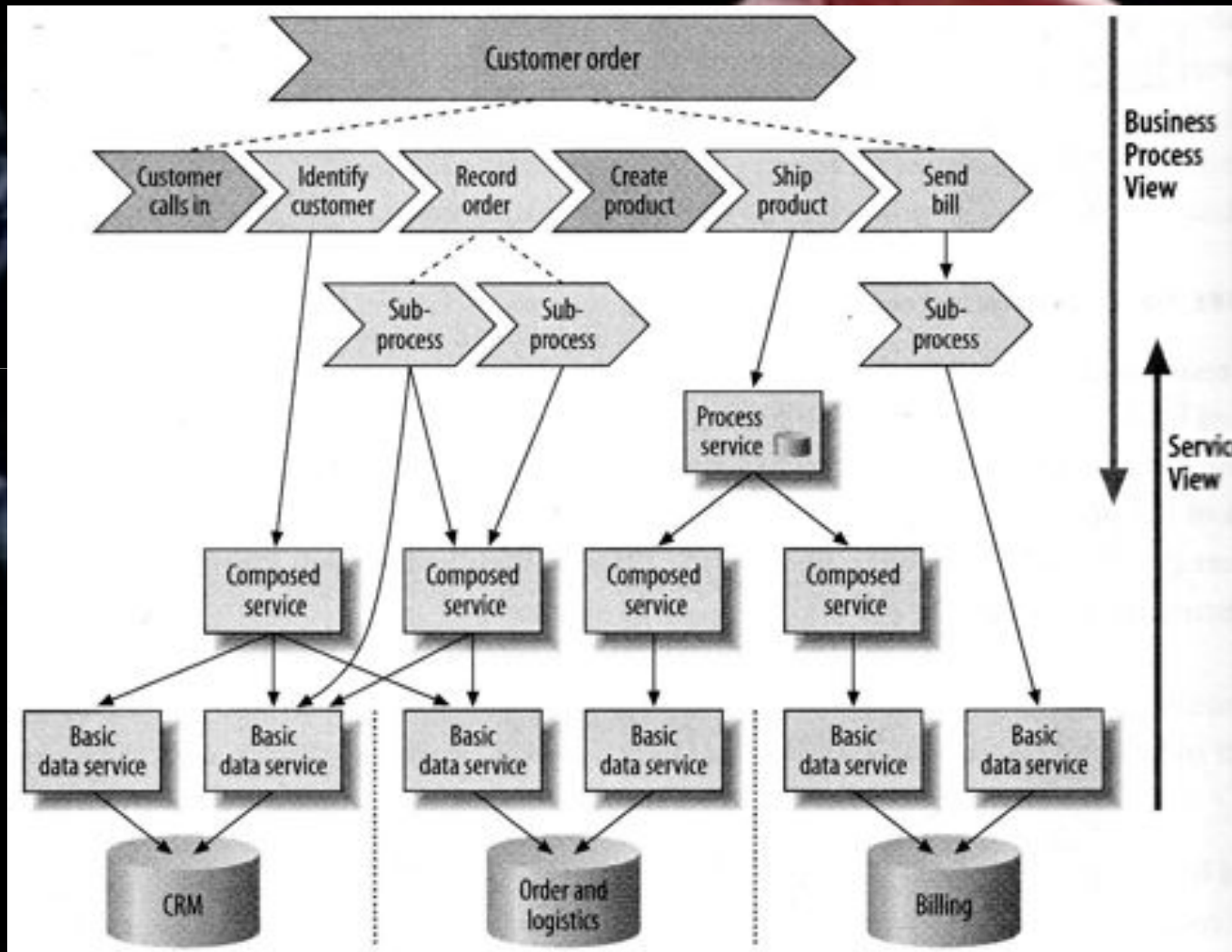
Zentrale Steuerung  
Oft im Unternehmen

## Choreographie



Autonome Akteure  
Oft zwischen Unternehmen

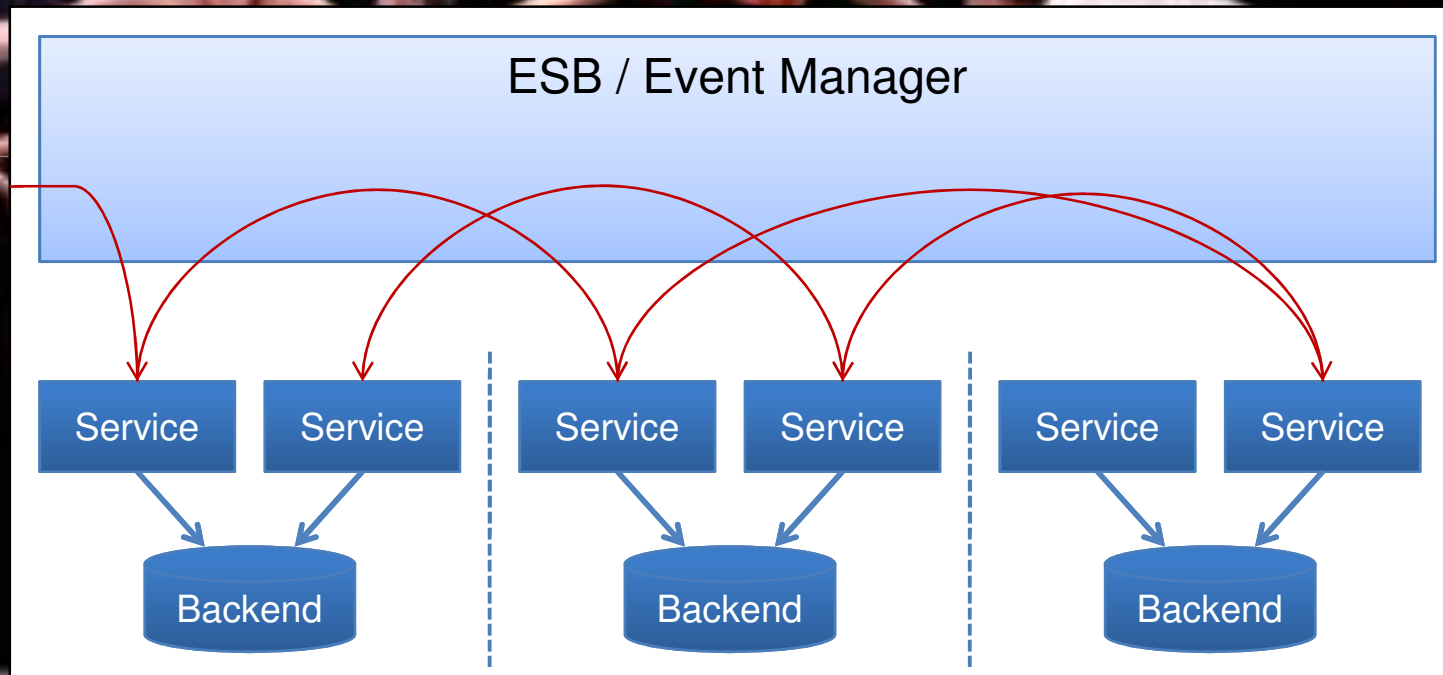
# Process Services zur Orchestrierung



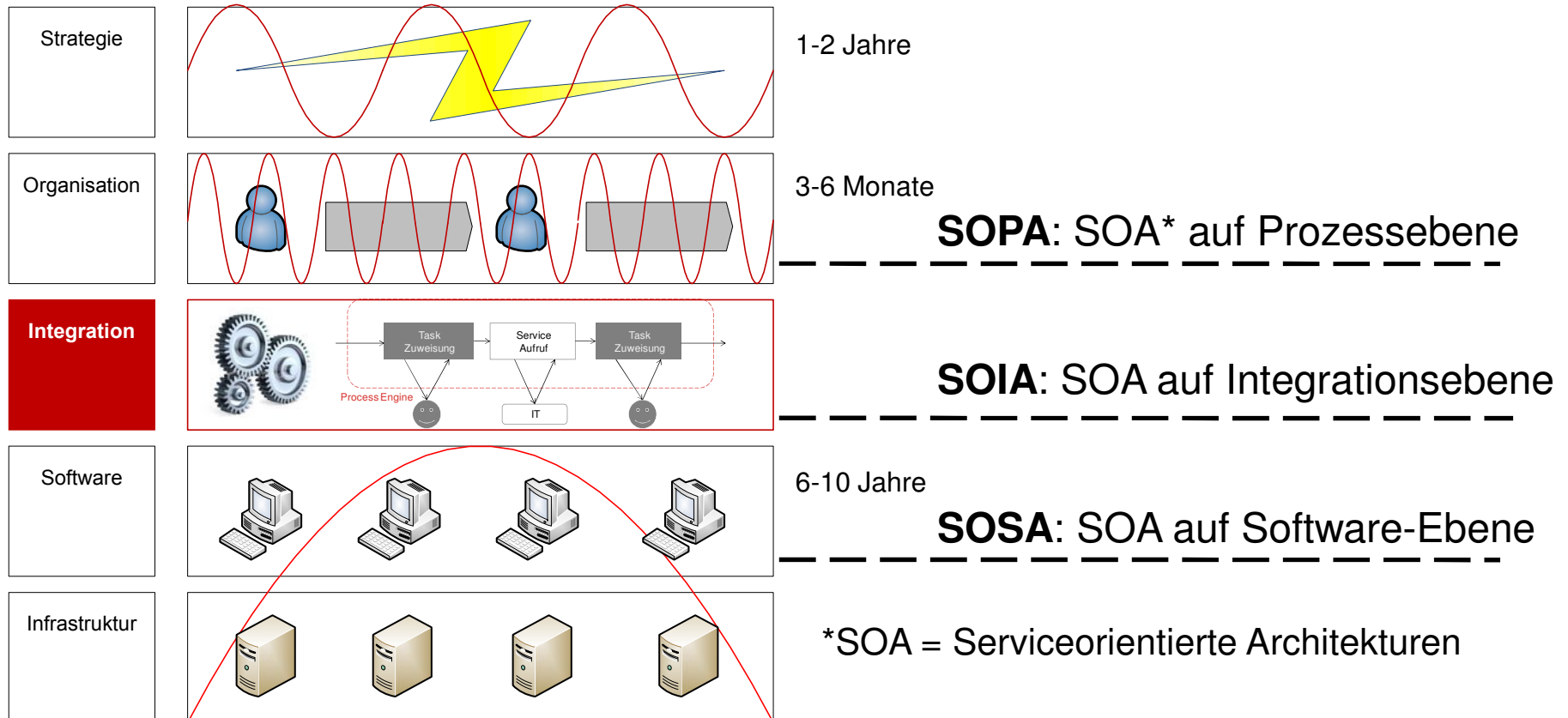
Quelle: Nicolai Josuttis



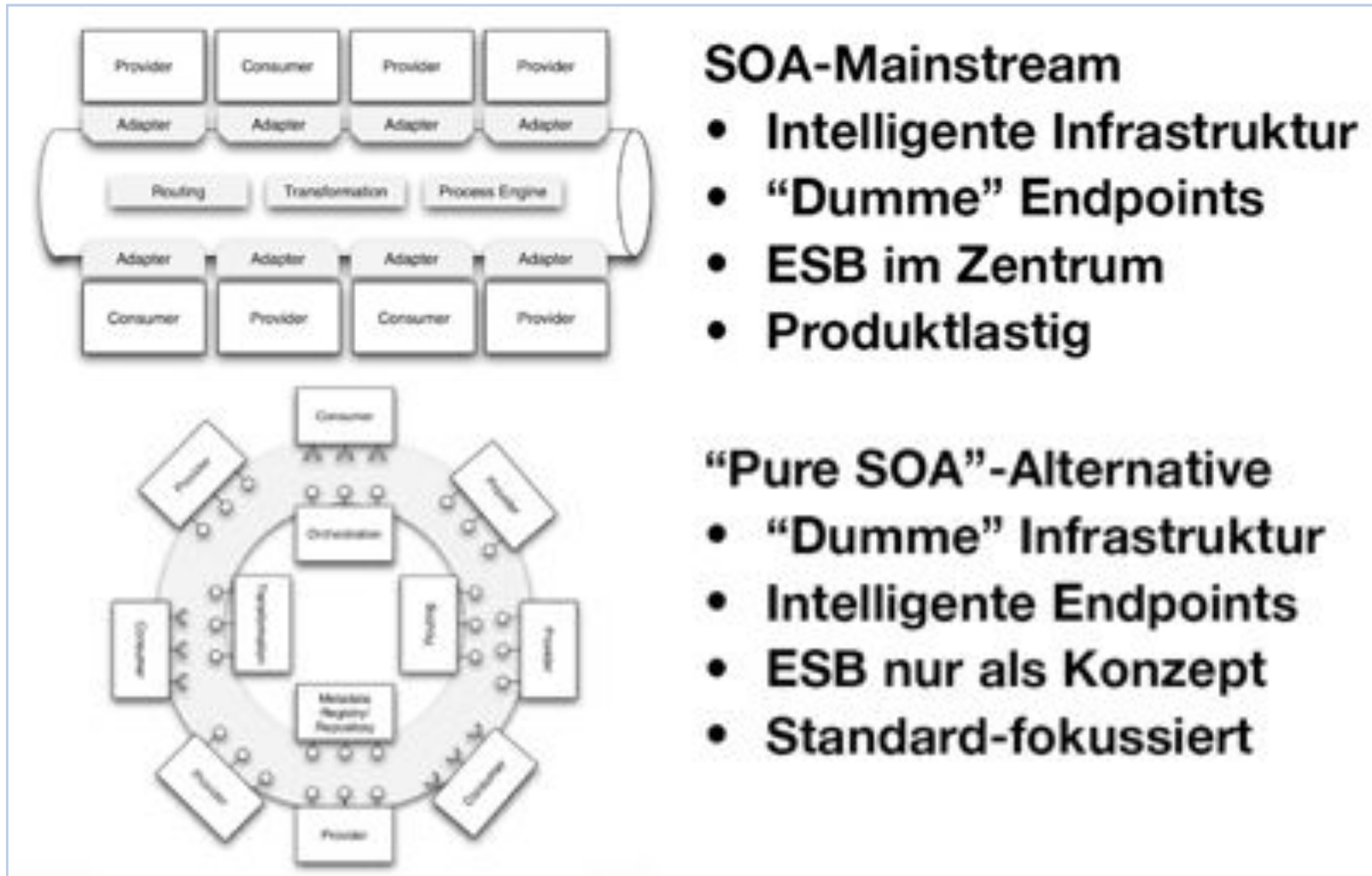
# Event Driven Architecture (EDA)



# Service ≠ Service ≠ Service



# Braucht man den ESB?



Nicht vergessen:  
Die Hockey-Stick-Funktion



Vielen Dank!

Weiter geht's:  
[www.jboss.org/jbossesb/](http://www.jboss.org/jbossesb/)  
[www.bpm-guide.de](http://www.bpm-guide.de)



**BPMGuide**

It's Business Process Management





**camunda**  
The Business Process Company

Fragen &  
Antworten

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