The Relevance of Management of Business Process and Orchestration

Prof. Dr. Lutz Heuser
Executive Vice President – Head of SAP Research

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Agenda

- SAP Research
- European ICT Strategy 2020
- Future Internet
About SAP Research

Objectives

Created 1999 with the mission of talent developing and contribution to SAP's product portfolio...

- by identifying and shaping emerging IT trends
- by generating breakthrough technologies through applied research.

- Tapping into the academic brain-pool through campus based research centers
- Largest PhD program for IT in Germany
- Open Innovation model through Co-Innovation
- Participation in EU programs
- Actively engaged in think tanks such as the International Research Forum
A selection of Research Partners Around the Globe
Agenda

- SAP Research
- European ICT Strategy 2020
- Future Internet
The European ICT Strategy 2020 aims to achieve sustainable economic recovery to prevent us from future turbulences (as those in 2007).

The increasing competition at a global scale and the emergence of new business models, not only fuelled by ICT, but also transforming the ICT sector itself.

Massively available ICT capabilities embedded, connected, ambient, and in the cloud.

Sustainable collaboration through joint calls.

Consultation Workshops & Think Tanks.

Mega Trends of ICT

- Cloud Computing
- The Future Internet
- Internet of Things
- Internet of Services

European ICT Strategy 2020

International Collaboration

SAP Research

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Agenda

- SAP Research
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Towards the Future of the Internet

Core Business Services
Including:
- Identity Management
- Trust
- Integrity
- Scaleability

Global Service Delivery Platform

Core Internet Infrastructure Services
- Accessibility
- Clear Addressability
- Transparent Communication
- Reliability

Devices and Components

Web-based Service Industry

Future Internet

Future Network Infrastructure

USA
- Google
- eBay
- iTunes
- Facebook
- Skype
- Amazon.com

Europe
- SAP
- Siemens
- Bertelsmann
- Philips
- Sense and Simplicity

Rest of the world
- TradeXChange
- Korea eGovernment
- Australian Government
- Centrelink

Network Convergence

Internet of Things

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an emerging market of on Demand BPM solutions
Business Process Management Systems and BPM-enabling Technology Market

Market Size and Growth

- Gartner estimates market size to be 3.6 Bln US$ in 2011
- Highest growth in outsourcing industry with Compound Annual Growth Rate of 10%
- Forrester claims that BPM technologies will be the most frequently implemented and updated technology category in 2009
Business Process Outsourcing Market

Market Size and Growth

1. Gartner estimates market size to be 172 Bln US$ in 2009
2. Highest growth in outsourcing industry with Compound Annual Growth Rate of 9.1%
Research Vision

Bring BPM into the Cloud
- Low entry cost, quick ROI
- Accounts for shifting buying power in customer base by addressing LOBs

Make BPM Lightweight
- Integrate end users into BPM initiatives
- Overcome cathedral-like BPM community structure

Make BPM Collaborative
- “Processpedia”
- BPM from within an organization not from outside

Make BPM a Commodity
- Simplify BPM
- Find the 10 percent that accounts for 90 percent of all use cases
Research Vision
Bring BPM into the Cloud

- Low entry cost, quick ROI
- Accounts for shifting buying power in customer base by addressing LOBs
- Effectively leverages SAP Research’s vision of Internet of Services by
  - Ability to invoke registered and brokered third party services into cloud-based processes
  - Wrap cloud-based processes as services and register them
  - Service providers can utilize service charging facilities
- Easy process integration along supply chains because of common infrastructure
- Connection to enterprise systems behind firewalls through secure data connectors
- Resolution of on premise events through cloud based scalable event hubs
Research Vision
Make BPM Lightweight

- Client technologies need to be end user environments
  - Browsers and applications such as Facebook
  - Existing end user application such as MS Outlook for future ones such as Google Wave
  - Zero installation

- Zero programming and implementation
  - Drag and drop operations
  - Drawing lines, etc

- Distributed and federated execution environments without centralized servers
Research Vision
Make BPM Collaborative

- "Processpedia"

- BPM from within an organization not from outside
  - Currently, highly paid consultants, outside in approaches, acceptance problems, etc
  - Effective end user collaboration mechanisms

- Collaborate over the entire BPM lifecycle
  - Design: high level view of process, UI design and WebService binding
  - Deployment: on the fly or one click operation through cloud-based infrastructure, blurred borderline between design and deployment
  - Execution: within end user environments, collaborative
  - Analysis: share, collaborate, discuss, collaborative sensemaking to reiterate and redesign the process

- All in one spot, all collaborative
Research Vision
Make BPM a Commodity

- Simplify BPM
- Find the 10 percent technology that accounts for 90 percent of all use cases
- Commoditize languages
  - Use of BPMN 2.0 (explicitly or under the hood) as a standard with dedicated execution semantics
- Commoditized execution environment
  - Provide app as a gadget to be executed in any end user environment, similar to the Youtube embed URL that allows to invoke a Youtube video within any website or as a gadget within all sorts of applications
Examples

Integrated cloud-based collaborative end user tool BPM tool suite à Enterprise 2.0 made reality

- “Gravity” for high level collaborative modelling in BPMN
- “Rooftop4BPM” (aka “Skyline”) for collaborative app development
- “Slipstream” for real-time end user process analysis
- “Yowie” for smooth process execution without tool breaks
From a theoretical model to a live environment

Major Changes in Business Process Management
- From process analysis and process design to executive-oriented process management
- Factors - process scenarios - challenges - resolution methods
- Portals, BPM, and SOA are growing together

The Technology Implemented:
Innovative Business Process Management with a subject-oriented, methodical approach (S-BPM) and LIVE PROGRAMMING in the operating department
- Modeling – validation and immediate execution Portals

The Solution:
SAP Research is analyzing S-BPM in the context of Transfer Projects processes:
application, staffing, and approval of complex research projects
SAP Research Advisory and Investment Board acts as steering committee along the process and reviews topics (including next big things) before they are presented to the Innovation Council.
Subject interacting diagram of the SAP Research Transfer Project process

Legend:
- **Subject**
- **TOE-Resource-Request**
- **Message**

- **Center-Management**
  - TOE-Resource-Request
  - TOE-Resource-Approval
  - Center-Manager-not-available
  - Start-project
- **Transfer-Project-Lead**
  - IO-Change-Request
  - IO-Change-Request
  - IO-Change-Request
  - IO-Change-Request
  - TOE-Resource-Request
  - TP-Final-Results
  - TOE-Resource-Approval
  - Center-Manager-not-available
- **SAP-Target-Group**
  - TOE-Content-Request
  - TOE-Content-Accepted
  - TOE-Changes
  - TP-Quality-Questionnaire
  - TOE-Budget-Approval
  - TOE-Budget-Rejection
  - TOE-Budget-Request
  - TOE-declined
- **Business-Development**
  - TOE-Signature-Request
  - TOE-Signed
  - TOE-Signed
  - TOE-Signed
- **Head of Research**
  - TOE-Signed
  - TOE-Signed
  - TOE-Signed
  - TOE-Signed

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Findings

- More efficient process modeling due to subject orientation
  - Main process could be created in one day
- More transparency in open project requests for project managers and controlling
- Better overview of state of all projects
- Fewer manual actions — word document not necessary anymore
  - Email is generated instead
- More efficient process flow due to integrated, computer-based workflow
- Faster process flow
Thank you!

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