



IBM Software Group

Get on top of your business processes through automation with WebSphere and WebSphere MQ Workflow

(anaptechs GmbH)

Tillmann Schall

Alexander Marschoun (IBM Austria)

WebSphere software

@business on demand software

Agenda

- Introduction
- Integrating WebSphere MQ Workflow into EJB-Environments
- Extending WebSphere MQ Workflow with scheduling functionality
- Summary and Conclusion
- Questions and Answers



Table of contents

Introduction

Integrating WebSphere MQ Workflow into EJB-Environments

Extending WebSphere MQ Workflow with scheduling functionality

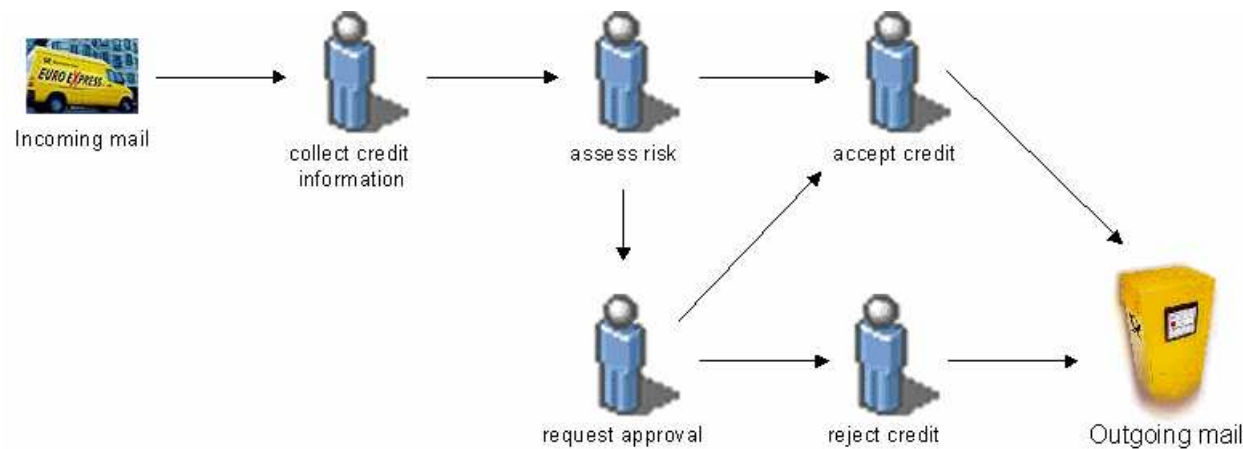
Summary and Conclusion

Questions and Answers



Introduction / Background

- Presentation is based on experiences that were made in a project for a group of liability insurances in Germany.
- Within this project all business processes were optimized and fully supported by the developed software. All existing legacy systems were stripped.



Architecture for Workflow Applications

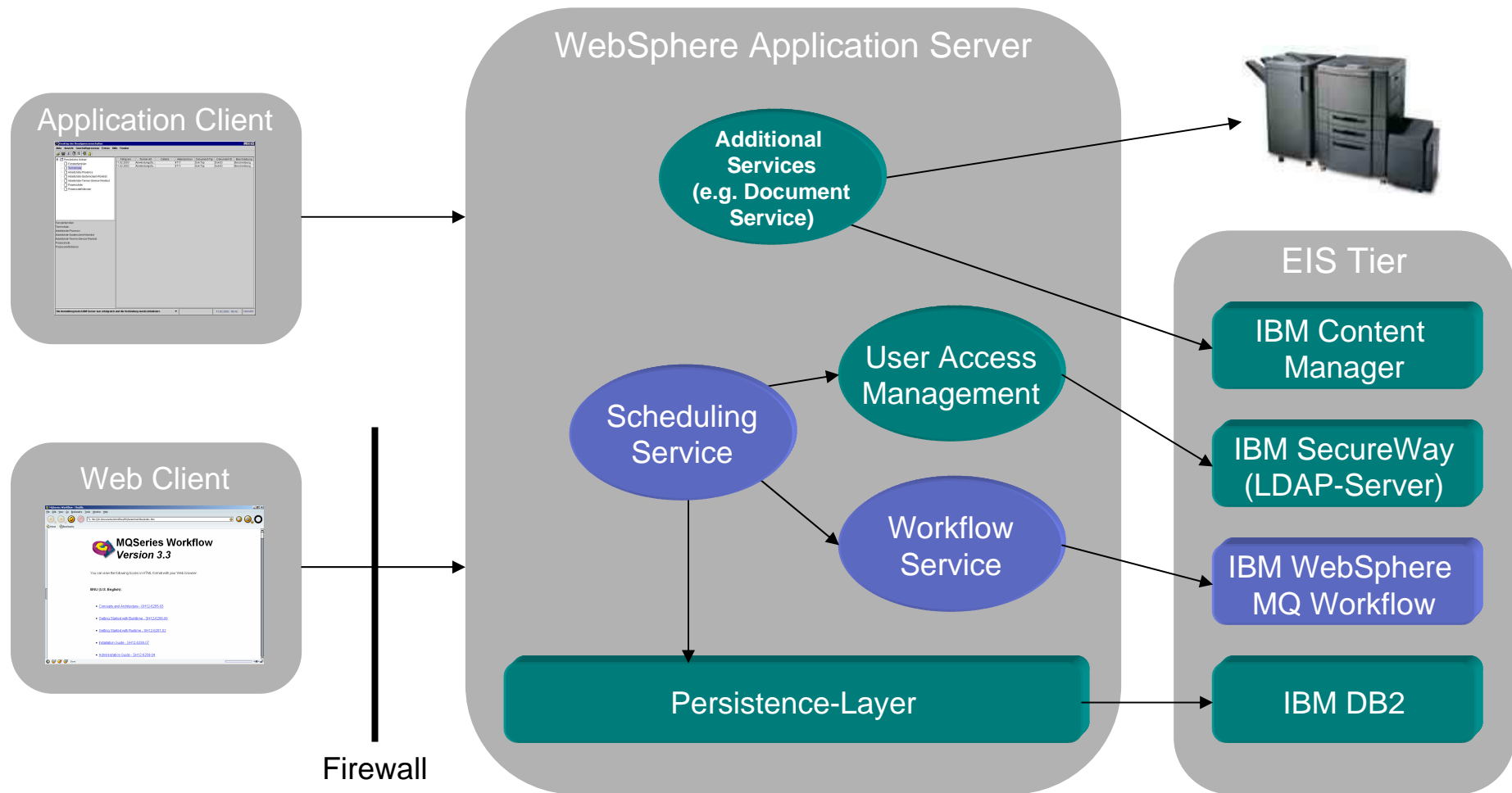


Table of contents

Introduction

❖ Integrating WebSphere MQ Workflow into EJB-Environments

Extending WebSphere MQ Workflow with scheduling functionality

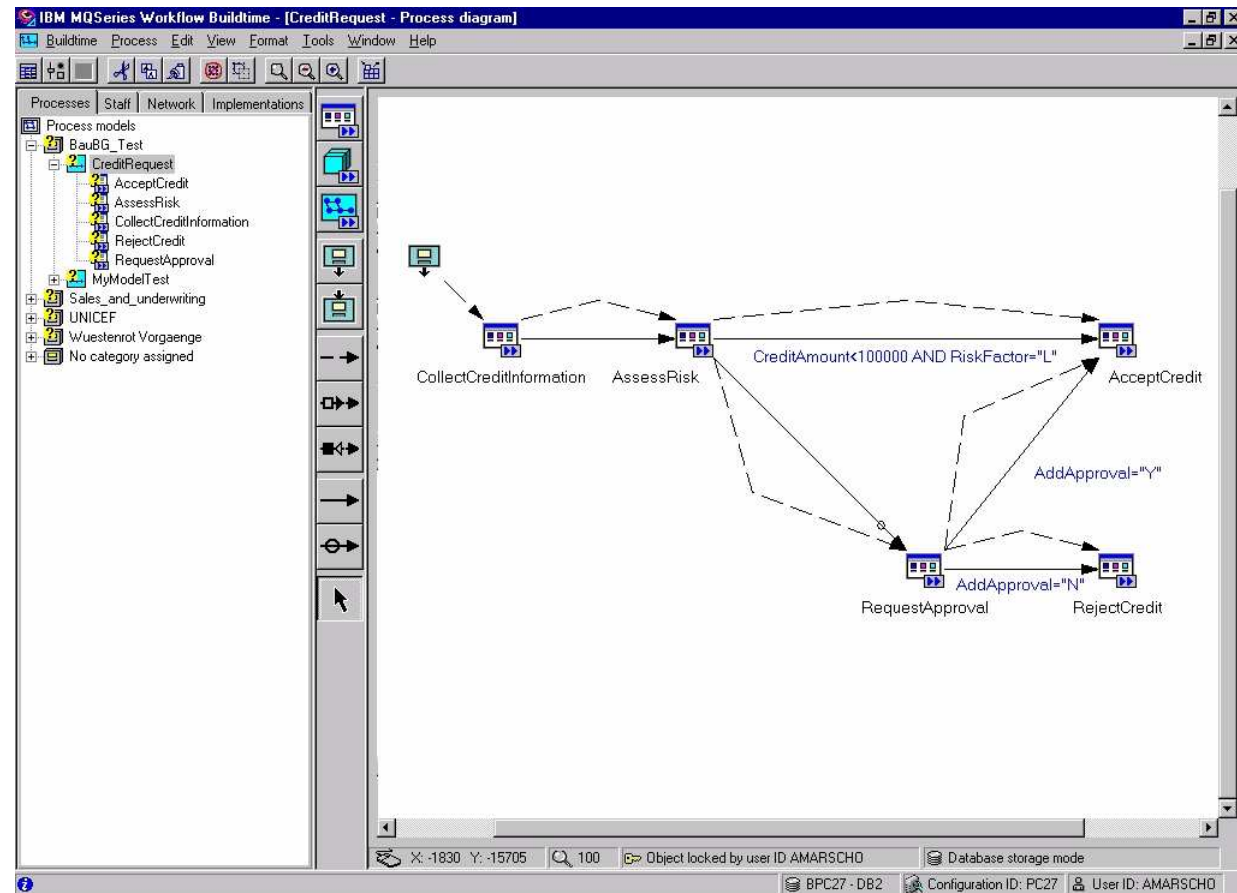
Summary and Conclusion

Questions and Answers



WebSphere MQ Workflow Overview

- Who?
Persons
- What?
Processes
- With?
Applications

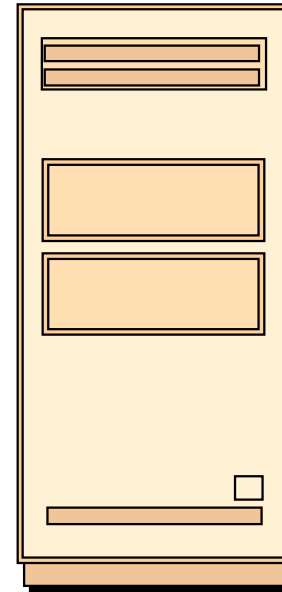
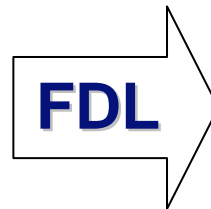


WebSphere MQ Workflow Overview



Buildtime

Workflow Definition
(Processes, Staff, ...)



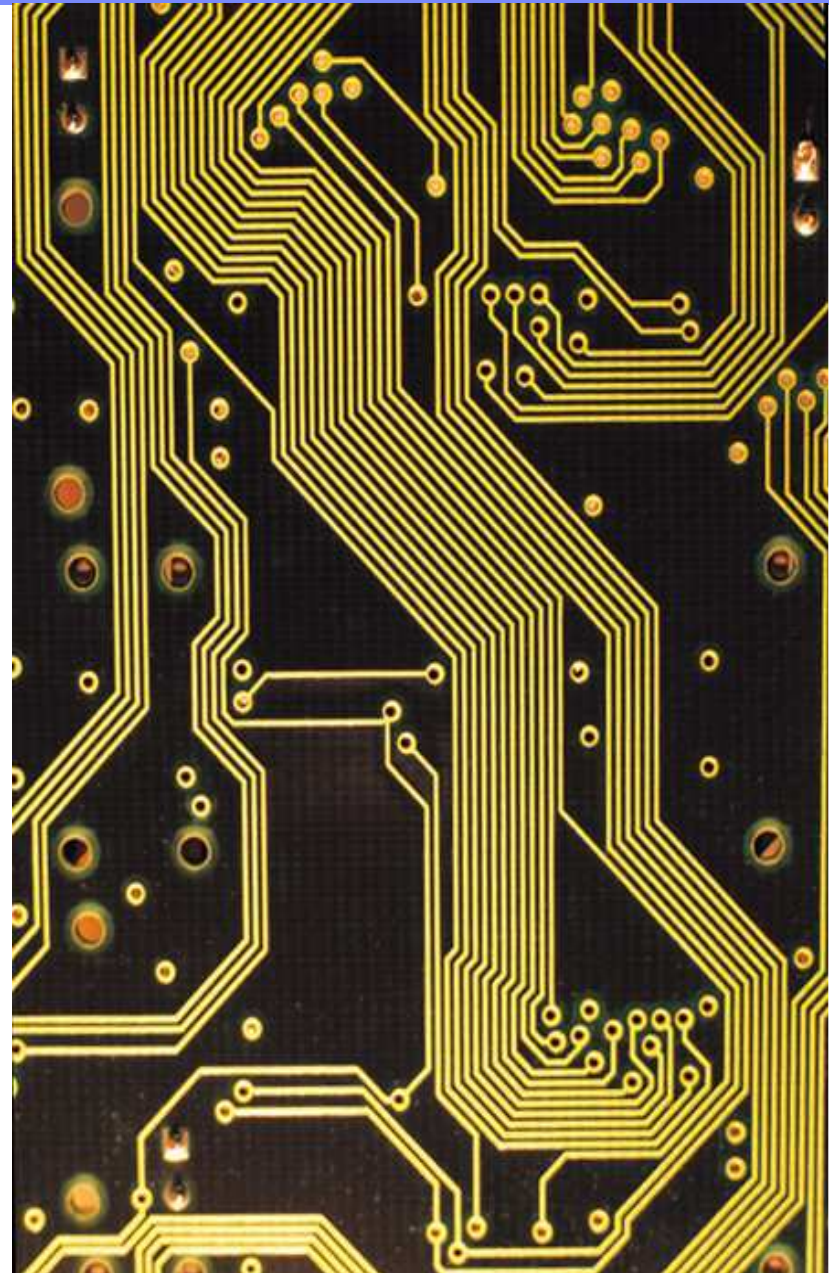
Runtime

Workflow Execution

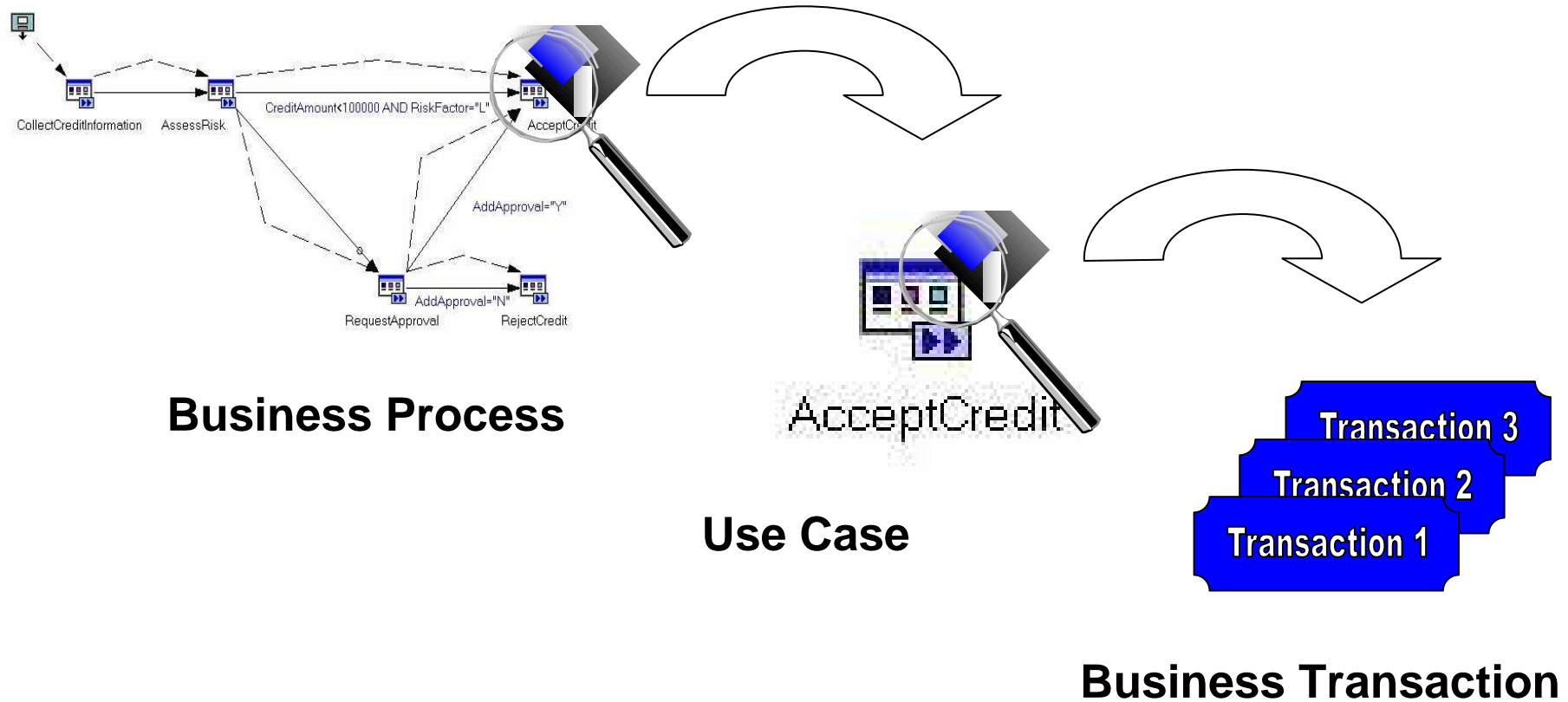


Why integrating the Runtime?

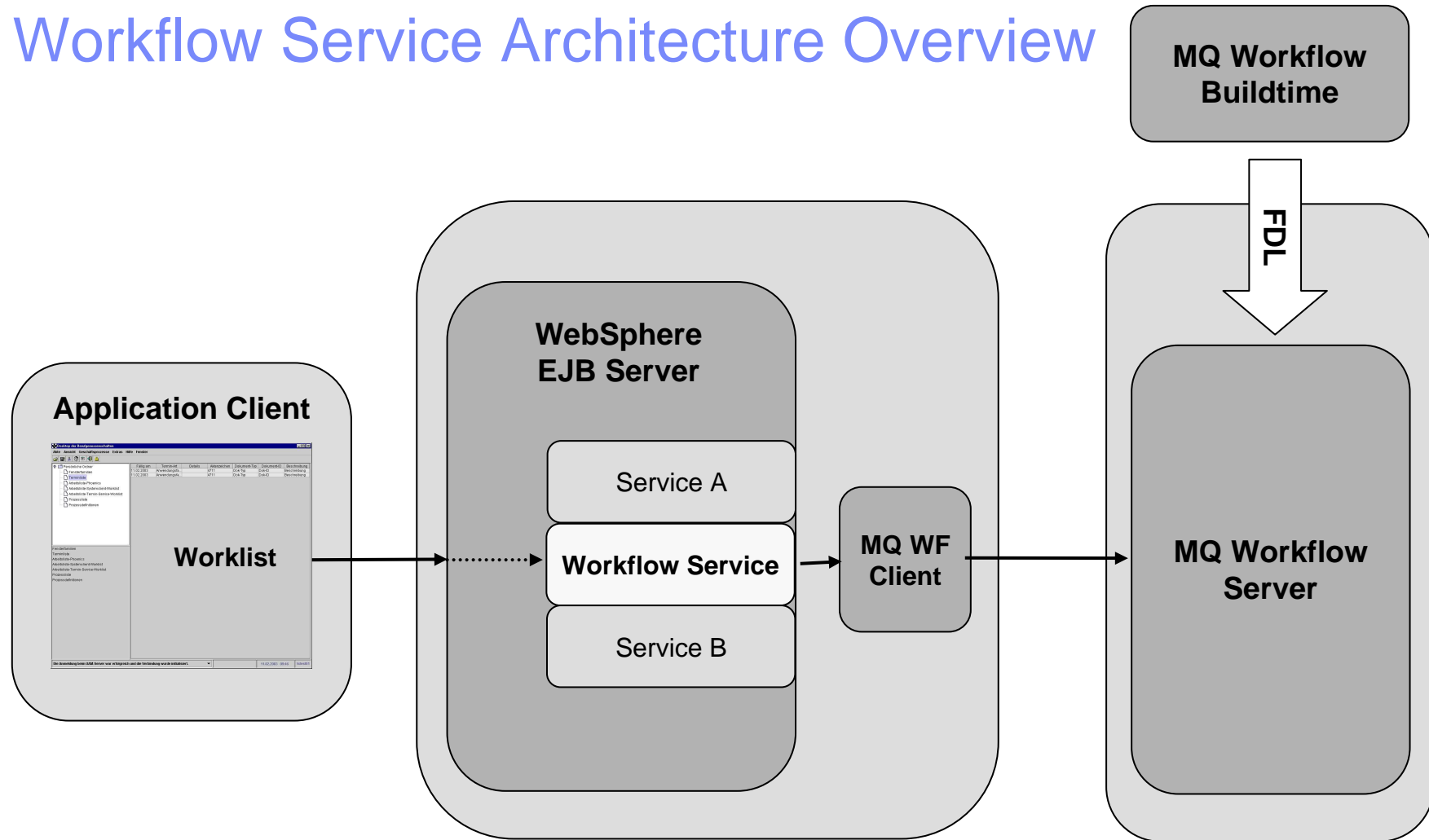
- Need for application with consistent look & feel
- Starting Use Cases which are not executables
- Transferring business data from activity to activity
- Evaluating business data in transition conditions



The Business Process Metamodel



Workflow Service Architecture Overview

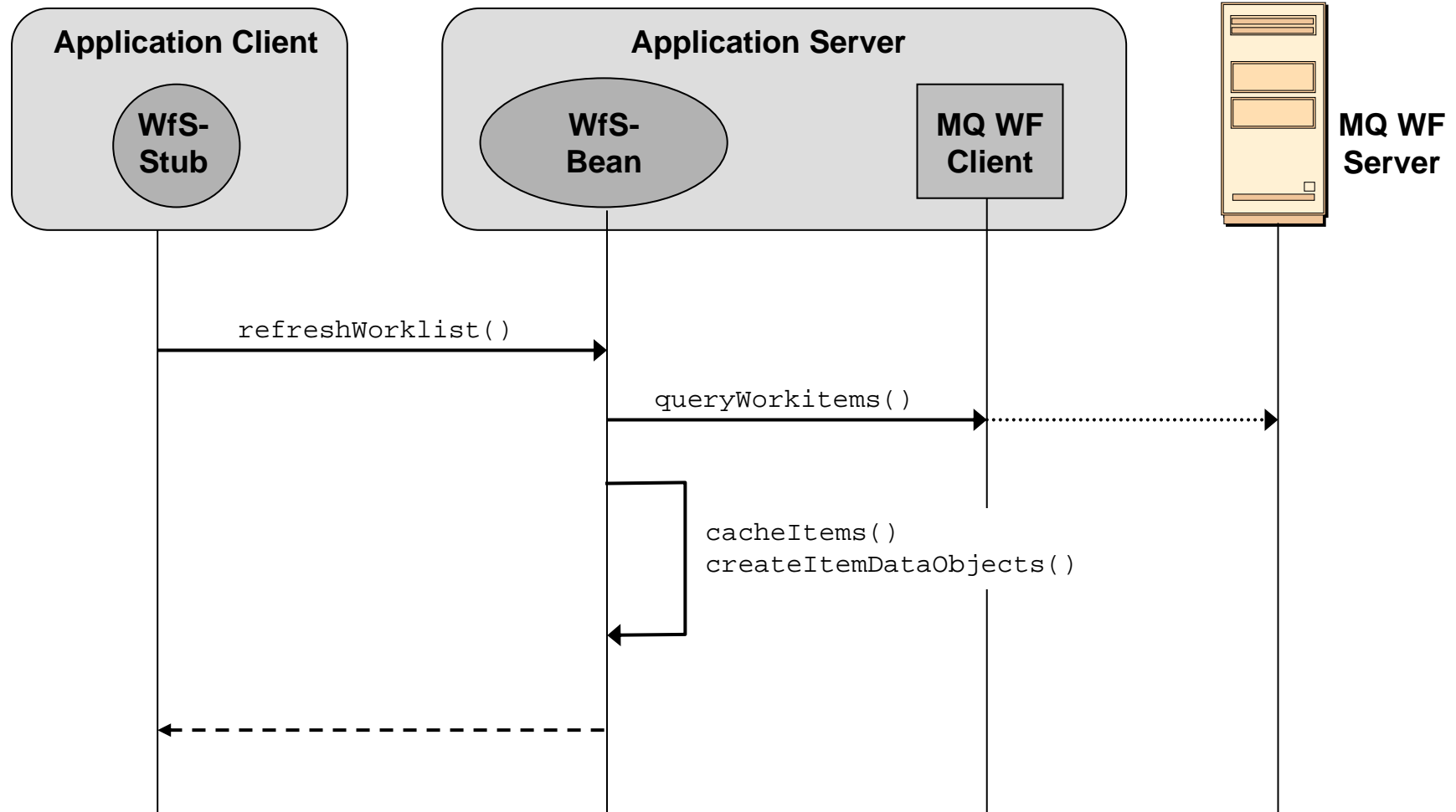


Solution Architecture Details

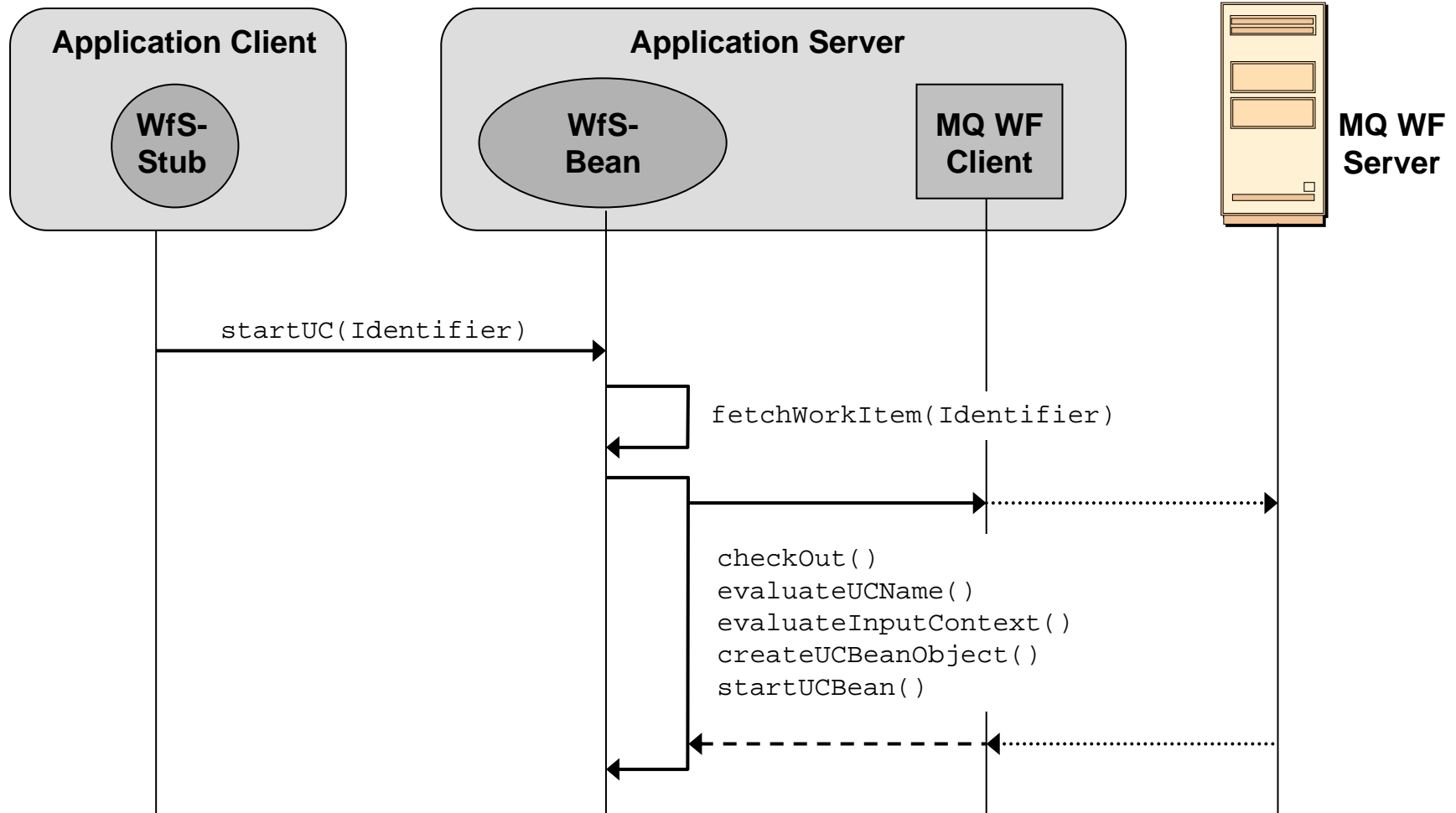
- WebSphere Application Server 4.0 & MQ Workflow 3.2
- Stateful Session Beans
- Caching Adapter Objects – Presenting Item Data Objects
- Item Identifiers
- Instantiating the Use Cases (Check out, Check in, Transferring Context Data)



Refreshing the Worklist



Starting a Use Case



Context Data Mapping

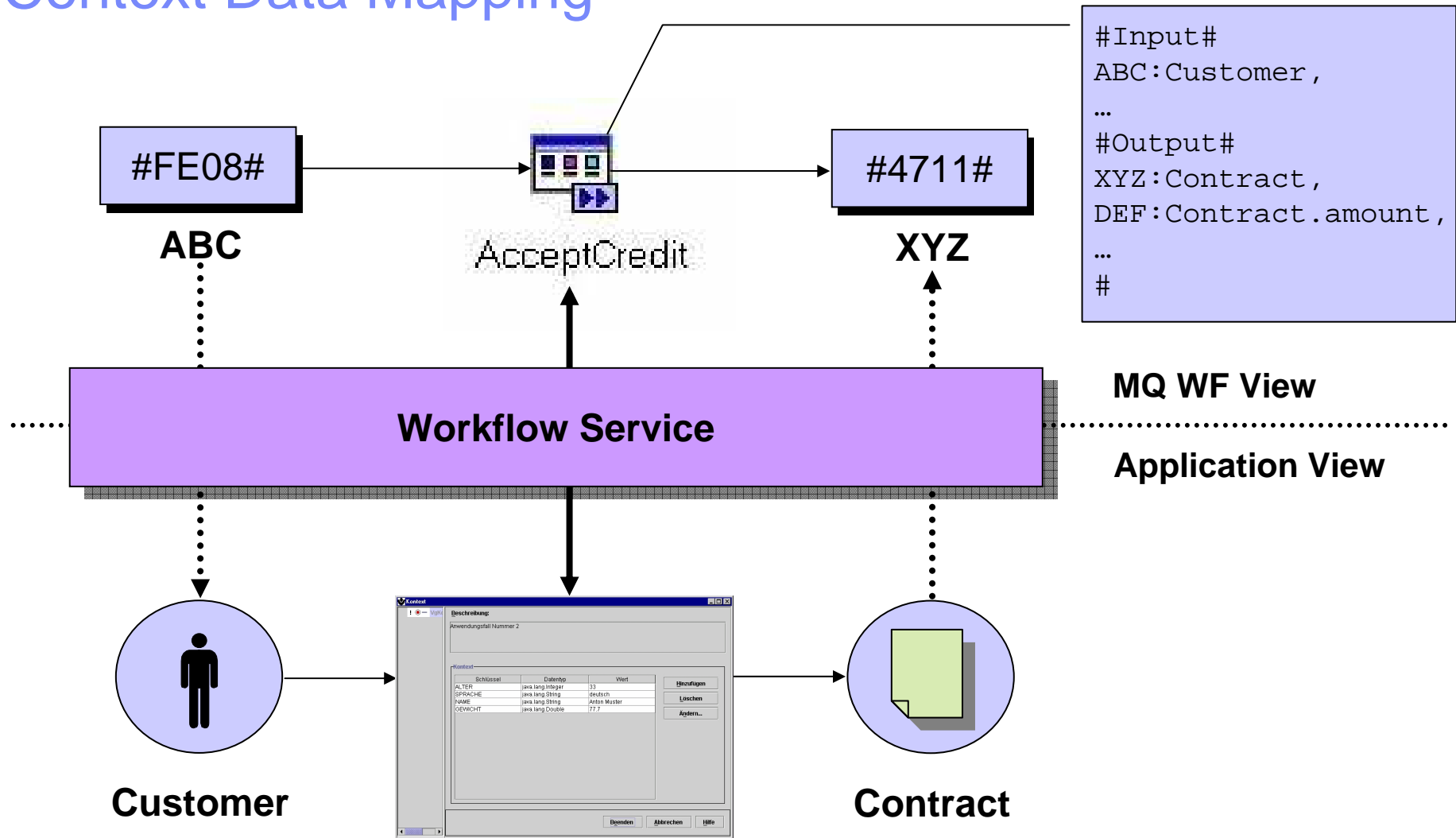


In MQ WF every activity has Input- and Output-Variables with one of the following types: String, Float, Long, Binary.

- How to transfer application specific Business Objects between activities (Use Cases)?
- How to evaluate transition conditions based on attributes of Business Objects without spoiling the application code?



Context Data Mapping



Authorization

WebSphere MQ Workflow

(Authorizations:
Processes,
Work Items)



User Access Management

(Application specific
– e.g. LDAP)



Table of contents

Introduction

Integrating WebSphere MQ Workflow in EJB-Environments

❖ Extending WebSphere MQ Workflow with scheduling functionality

Summary and Conclusion

Questions and Answers



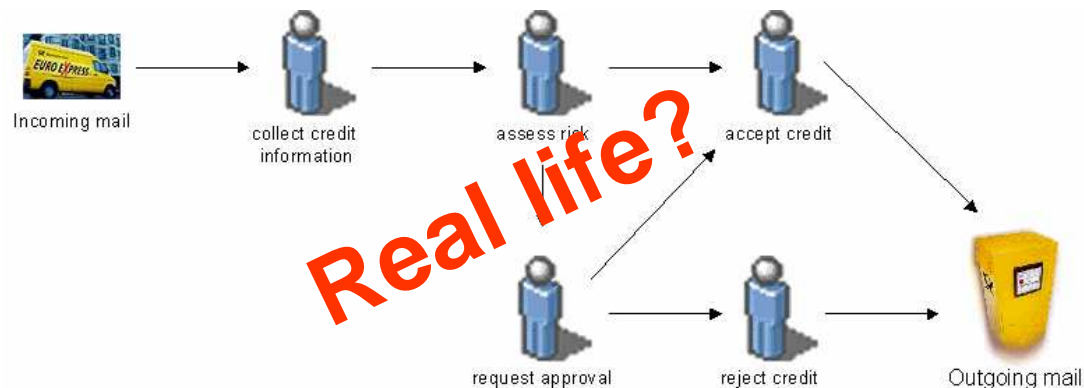
Scheduling Service - Meeting real life demands

Business Process Requirements

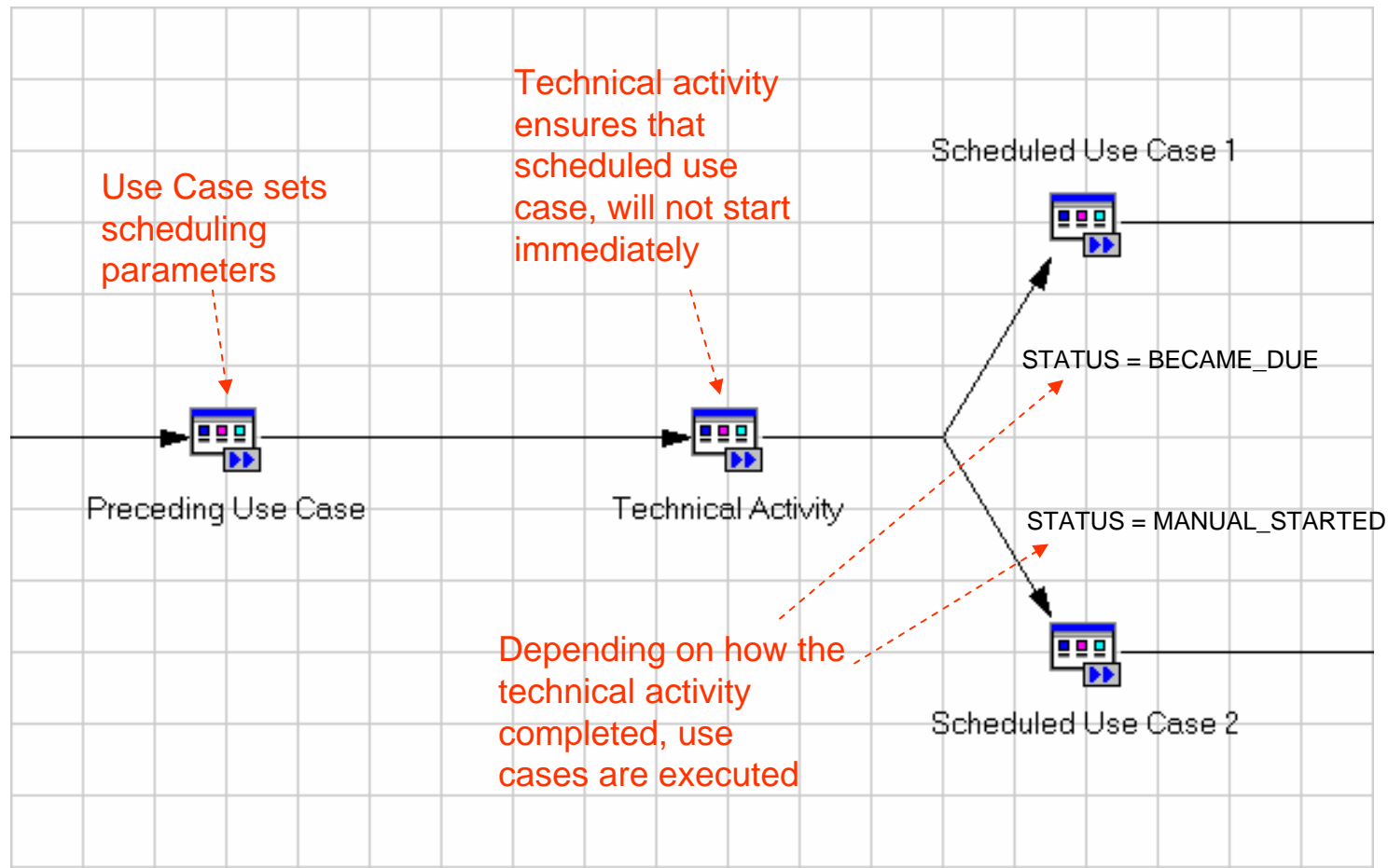
- Most processes are still focused on documents. Returning documents trigger continuation of running process(es)
- Processes may require delay between business activities (e.g. sending invoice and checking of payment two weeks later)

Restrictions of WebSphere MQ Workflow

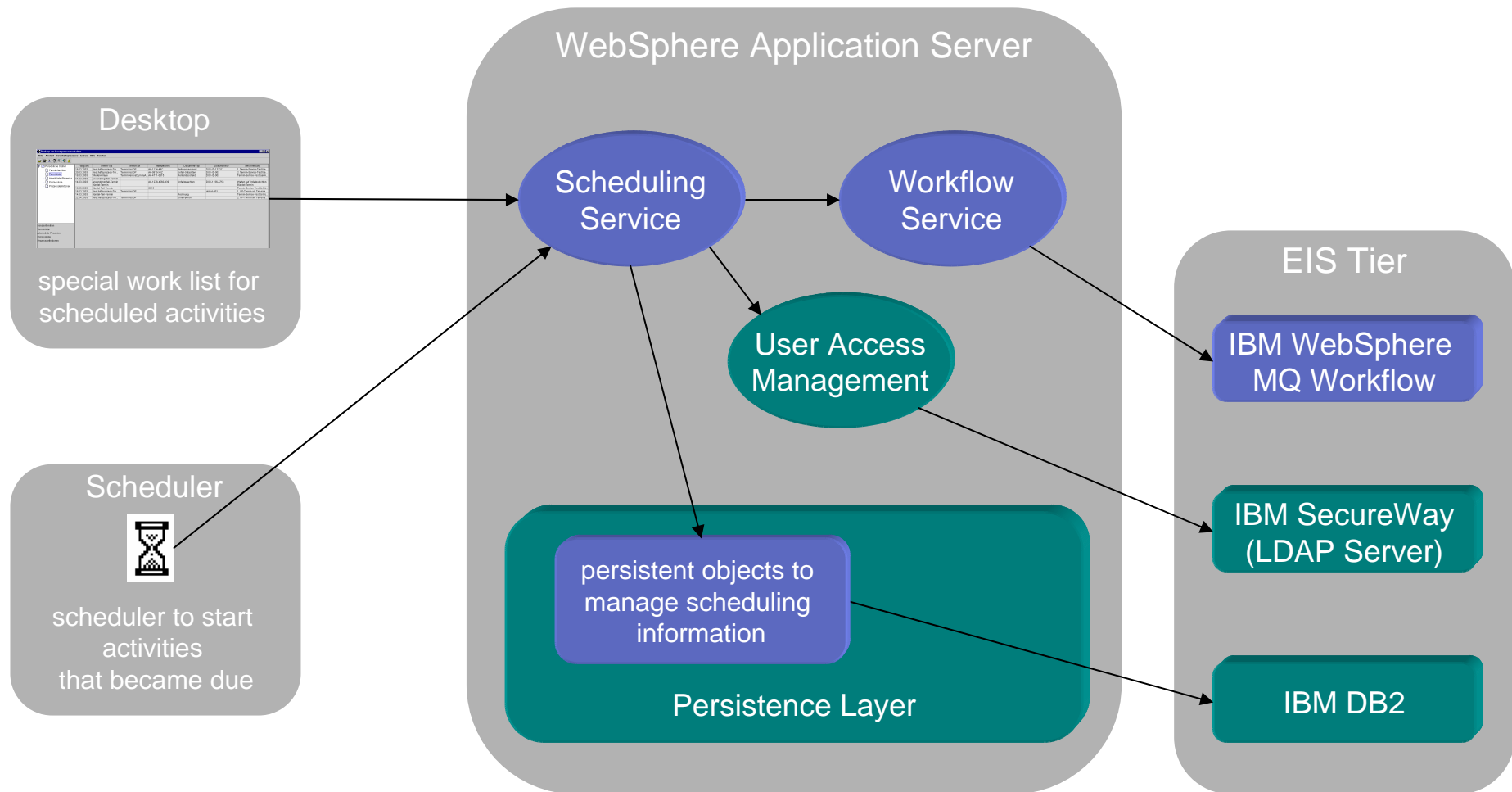
- No time- / date-triggered business activities
- No triggers to continue suspended processes
- No support for start of new business processes at a certain point of time



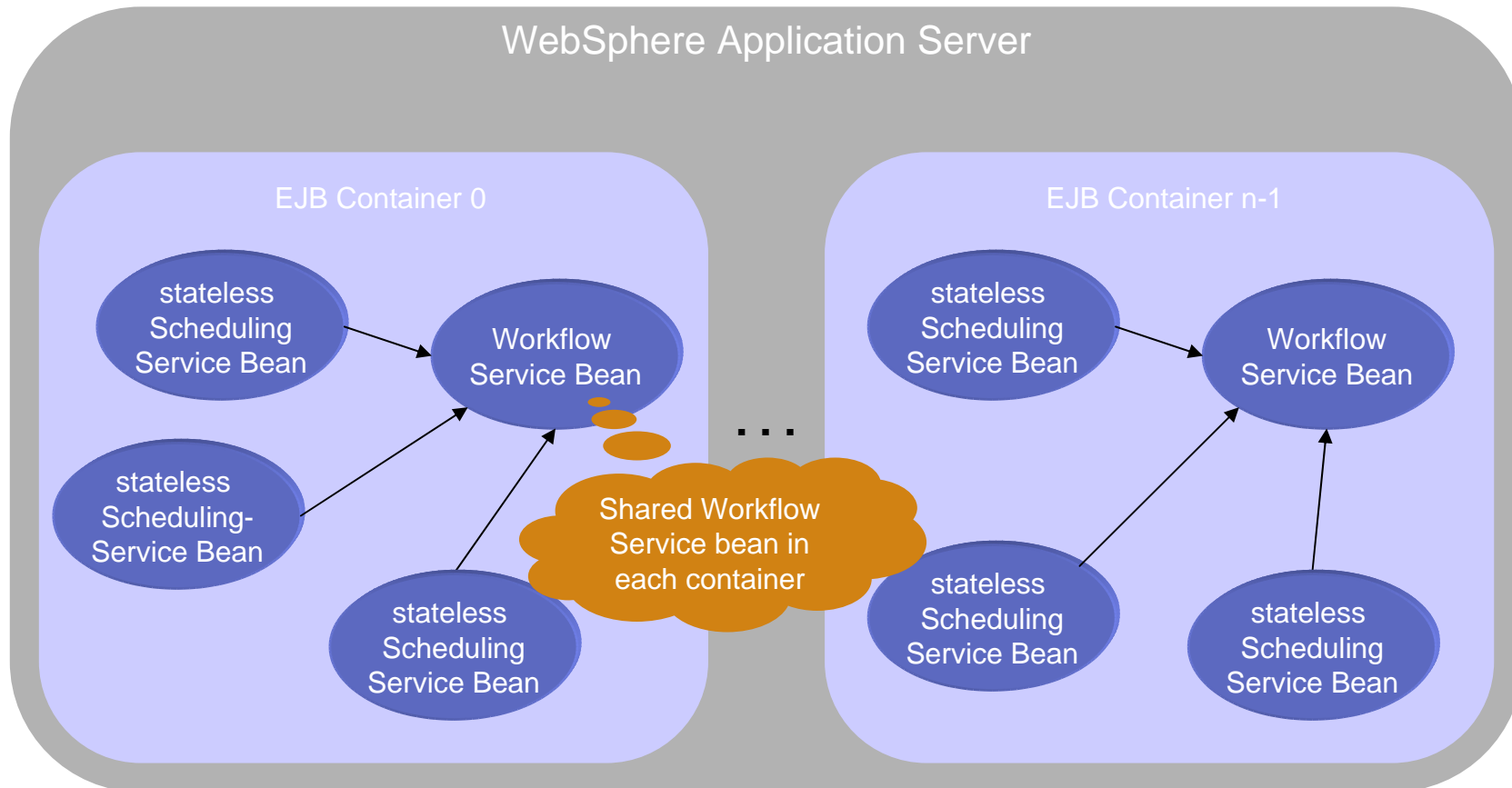
Modeling Scheduled Use Cases



Scheduling Service Architecture



How to access WebSphere MQ Workflow?



Scheduling Service Programming Model

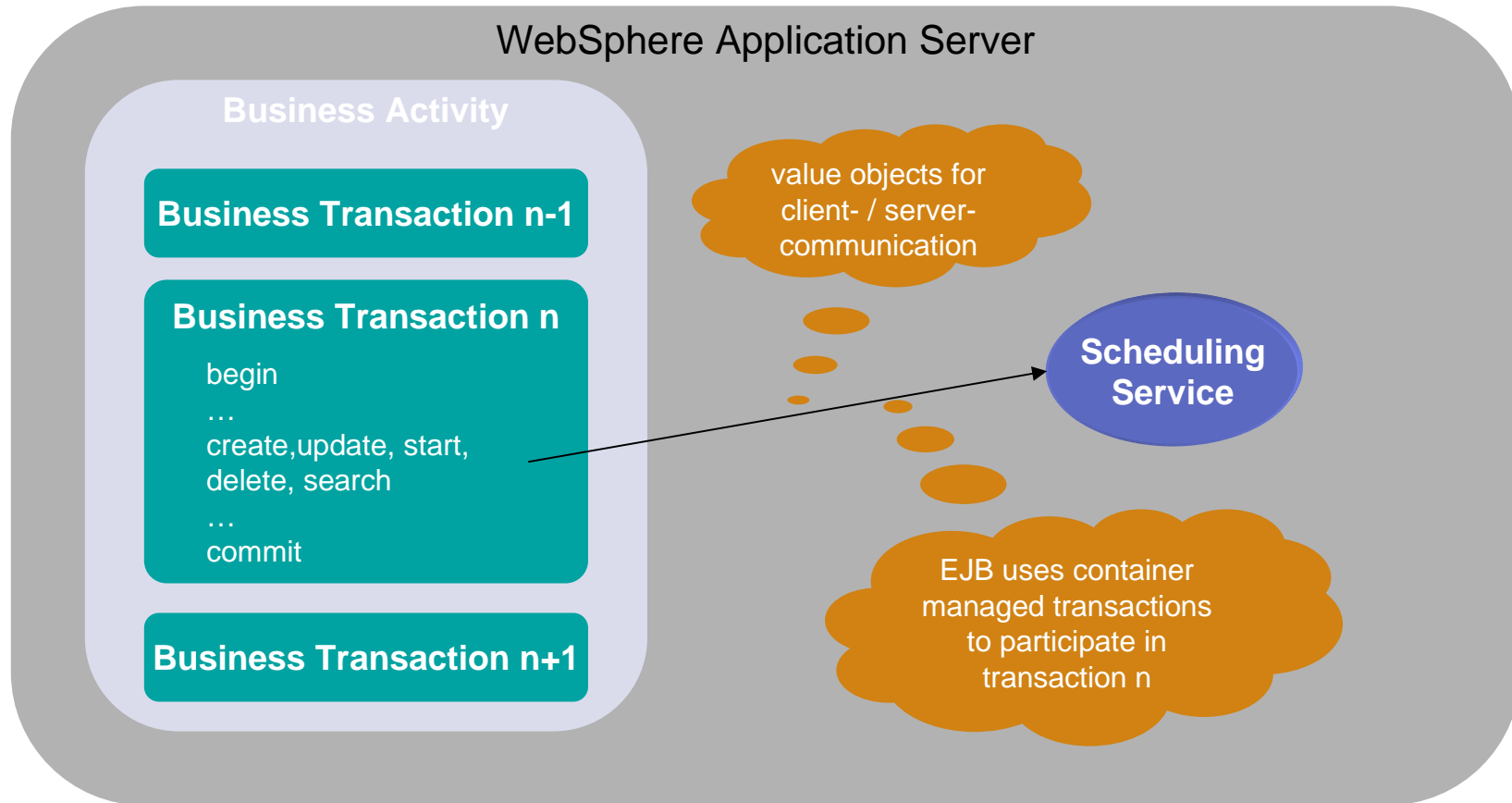


Table of contents

Introduction

Integrating WebSphere MQ Workflow into EJB-Environments

Extending WebSphere MQ Workflow with scheduling functionality

❖ **Summary and Conclusion**

Questions and Answers



Summary and Conclusion

- Both solutions are working quite well. The developed software system is almost productive, field tests are already running.
- Integrating and extending WebSphere MQ Workflow is quite a lot of work especially when dealing with complex requirements
- Since current version 3.4 integration is much easier due to support for stateless servers and synchronization of user data with LDAP directories.



Table of contents

Introduction

Integrating WebSphere MQ Workflow into EJB-Environments

Extending WebSphere MQ Workflow with scheduling functionality

Summary and Conclusion

Questions and Answers



Questions and Answers

