



IBM Software Group

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

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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



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Introduction

Integrating WebSphere MQ Workflow into EJB-Environments

Extending WebSphere MQ Workflow with scheduling functionality

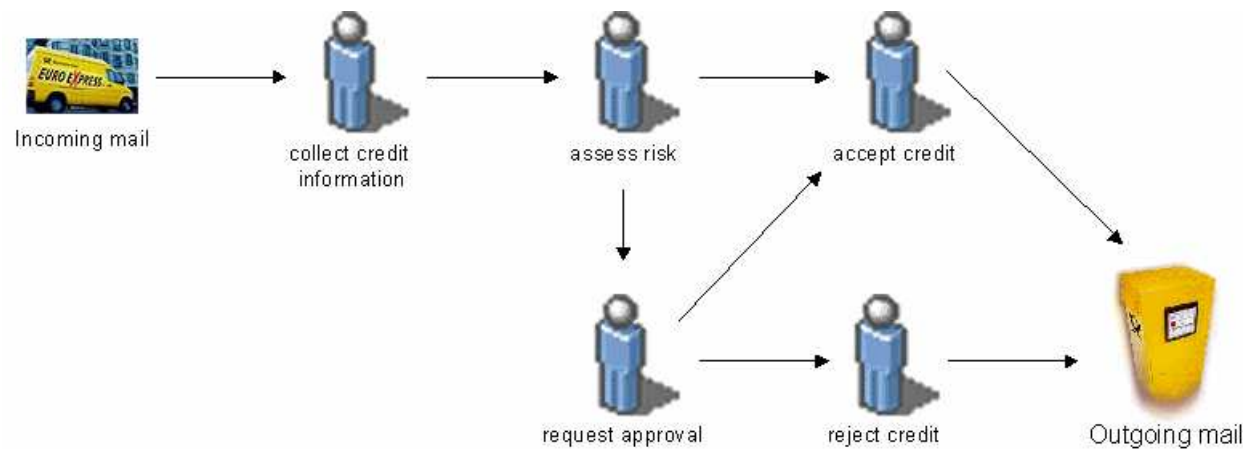
Summary and Conclusion

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

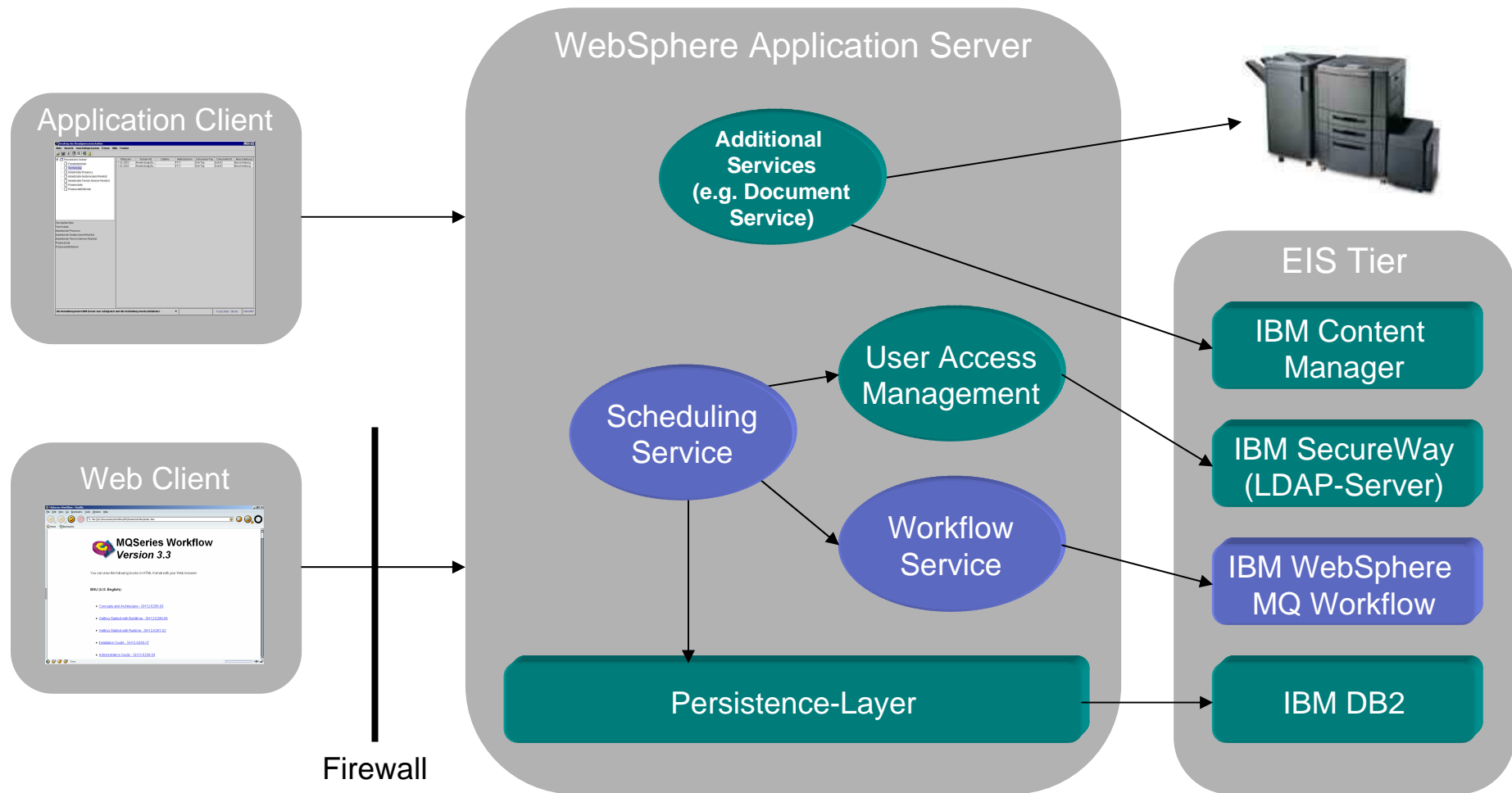


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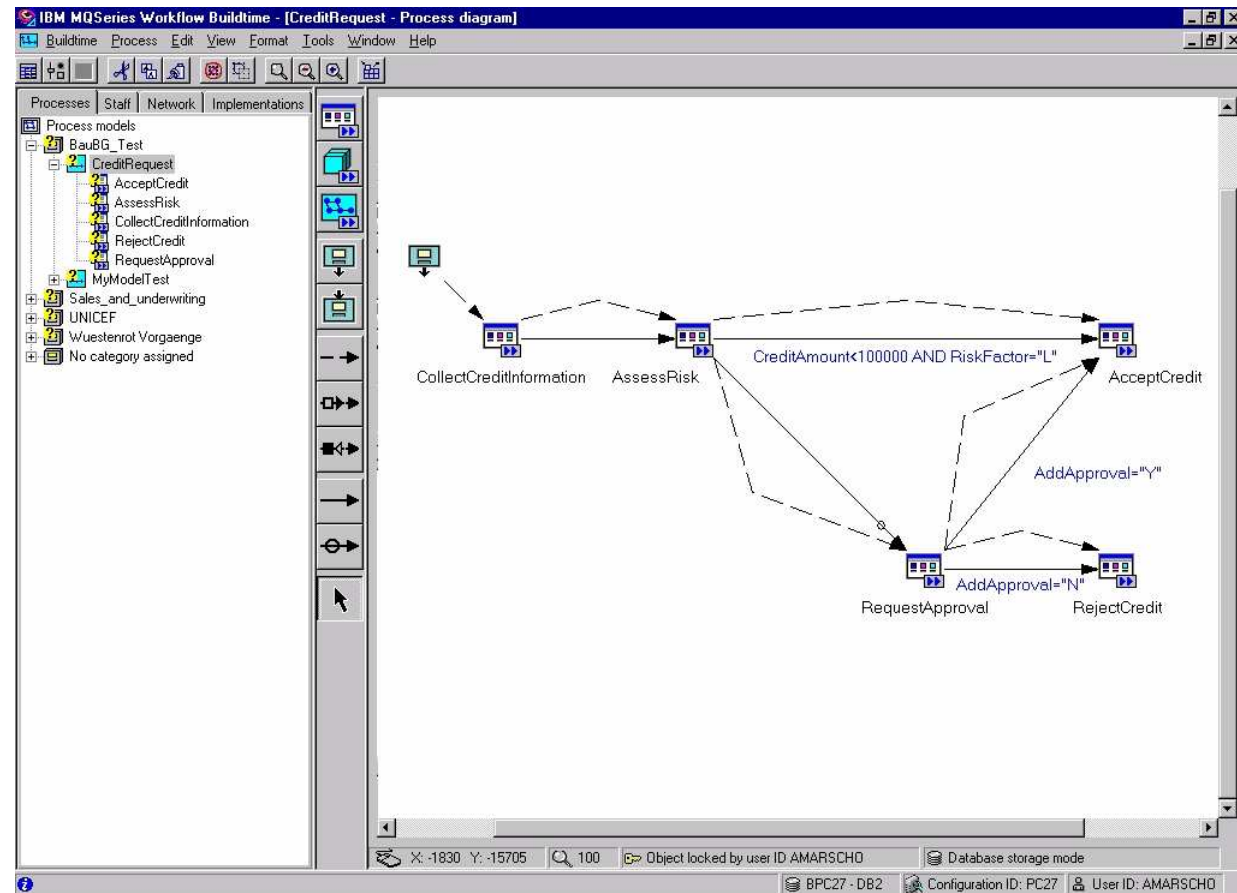
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WebSphere MQ Workflow Overview

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

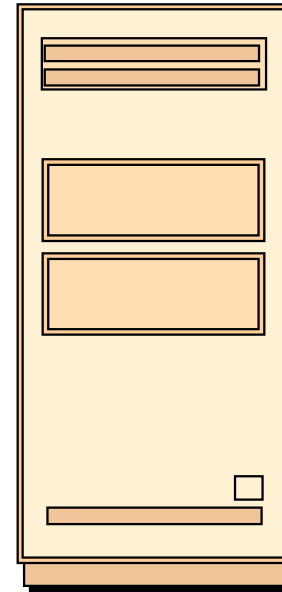
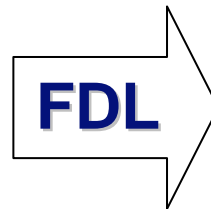


WebSphere MQ Workflow Overview



Buildtime

Workflow Definition
(Processes, Staff, ...)



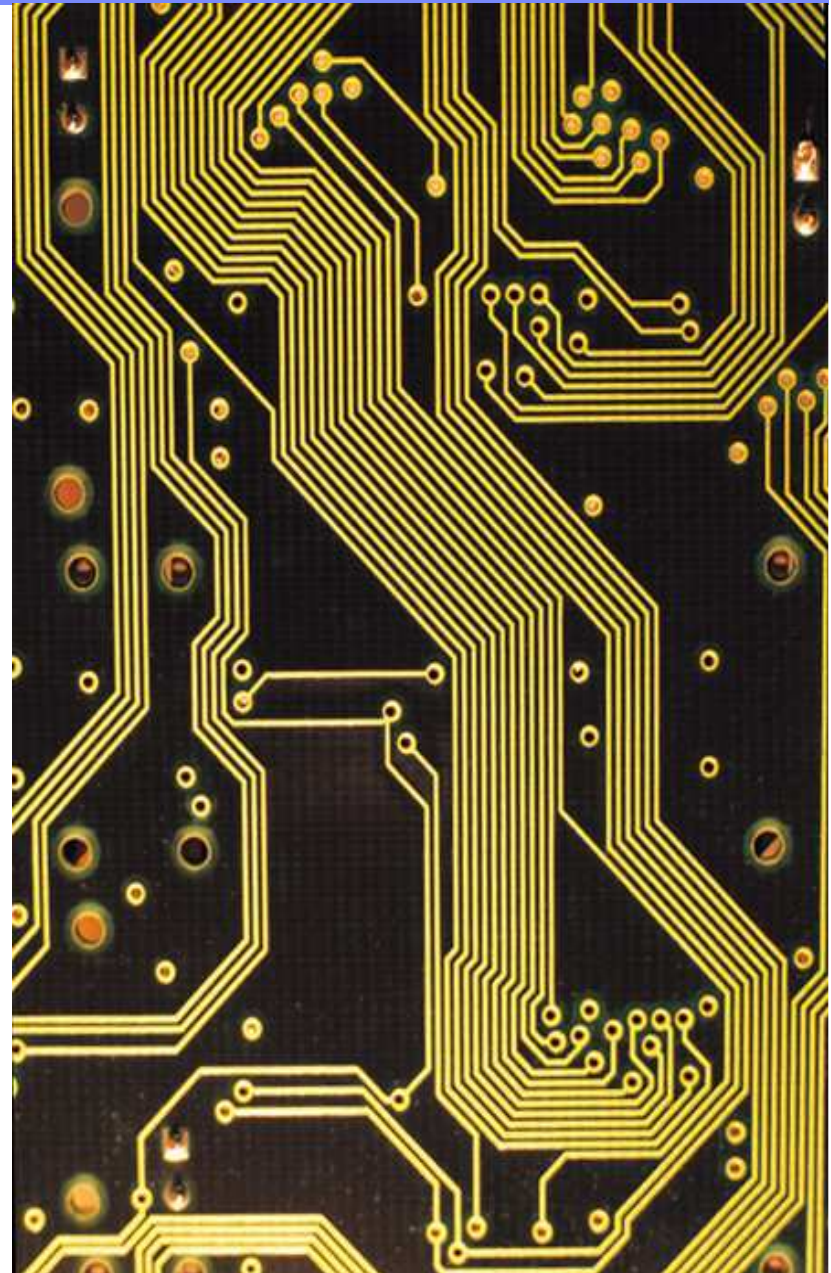
Runtime

Workflow Execution

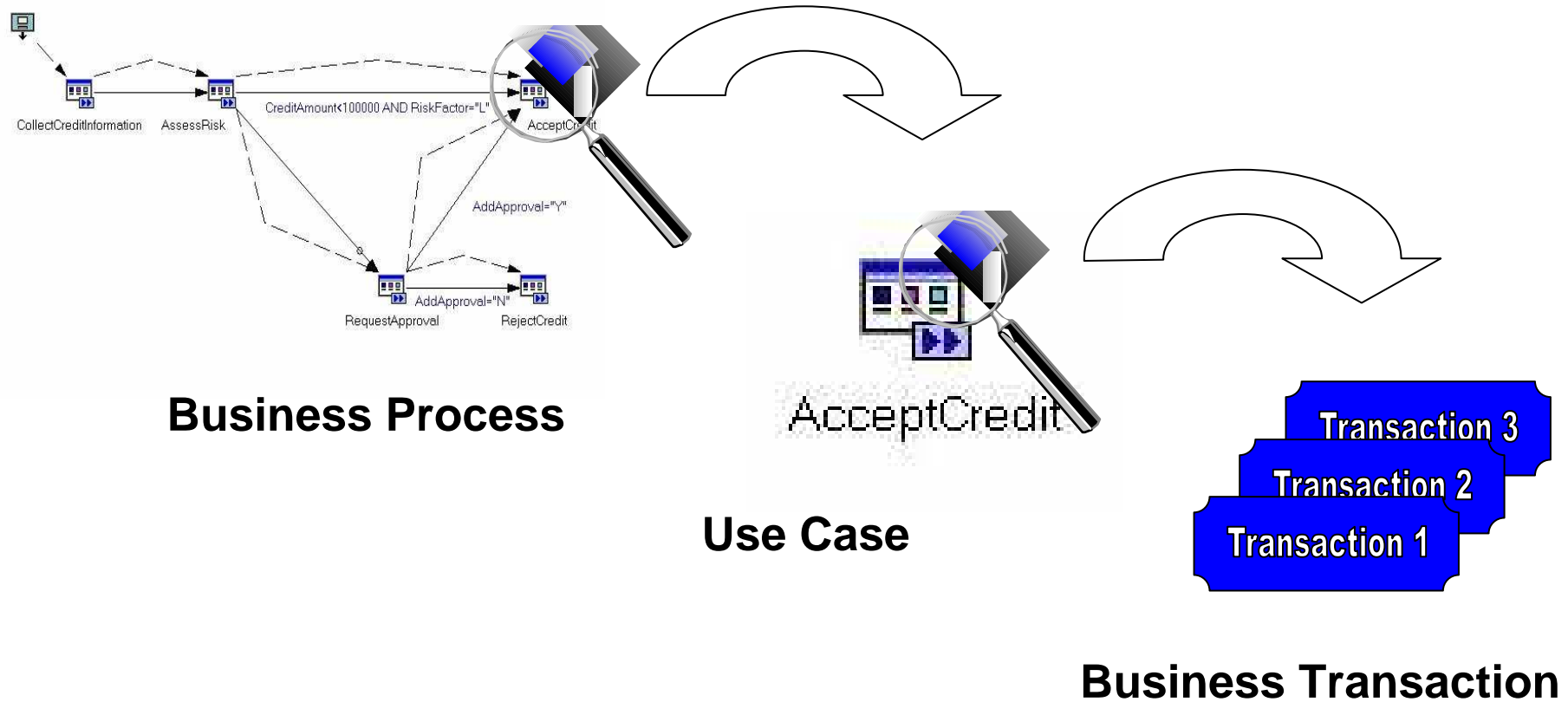


Why integrating the Runtime?

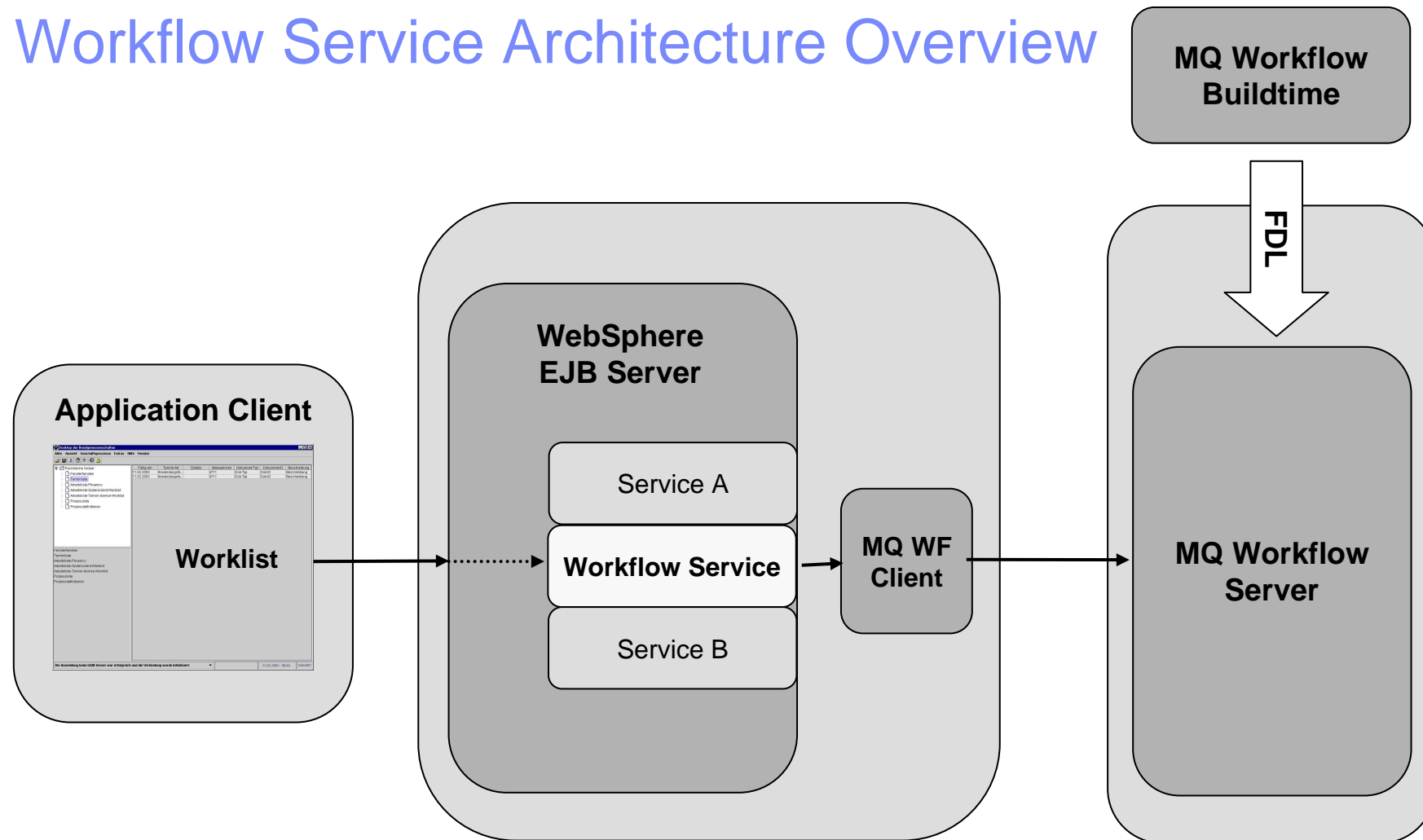
- Need for application with consistent look & feel
- Starting Use Cases which are not executables
- Transferring business data from activity to activity
- Evaluating business data in transition conditions



The Business Process Metamodel



Workflow Service Architecture Overview

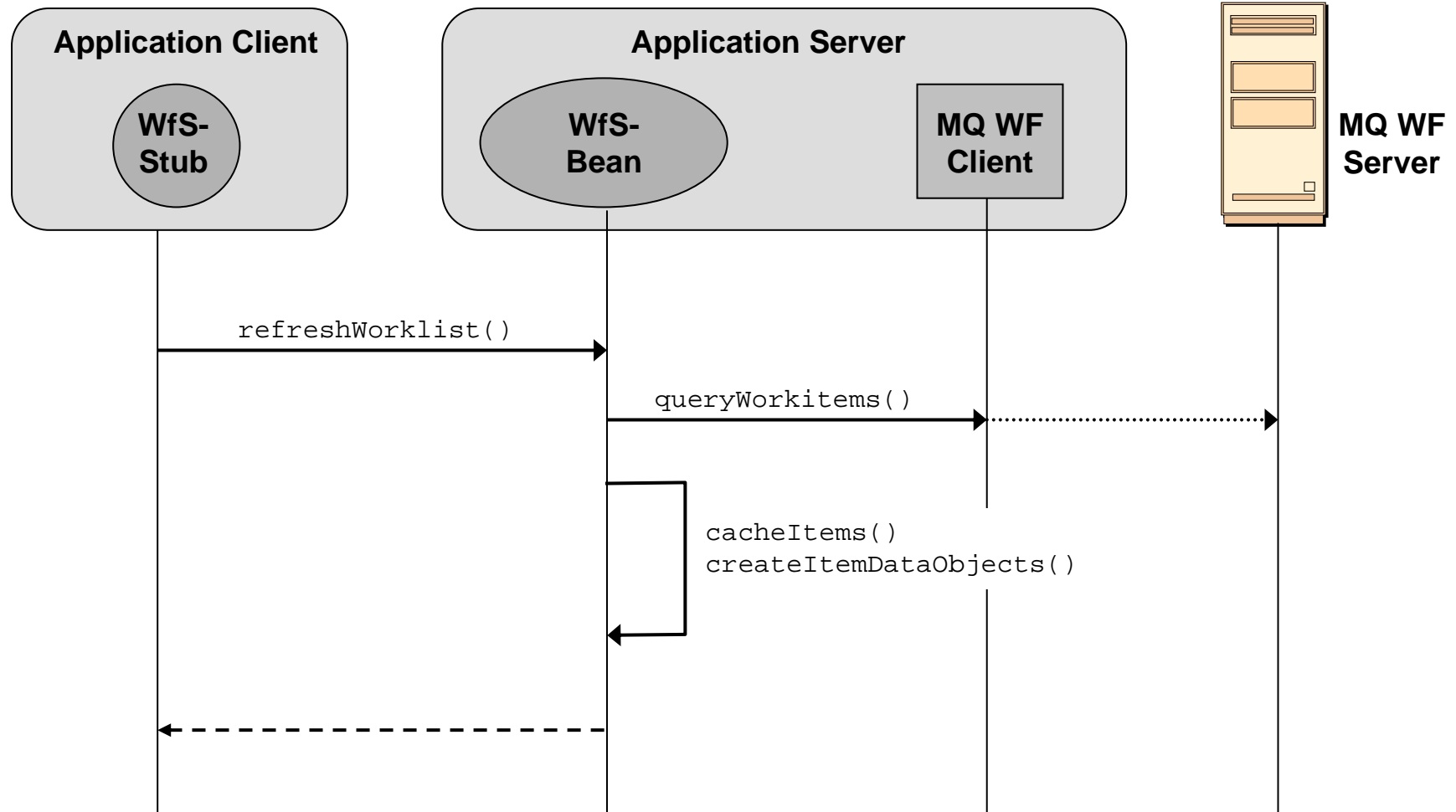


Solution Architecture Details

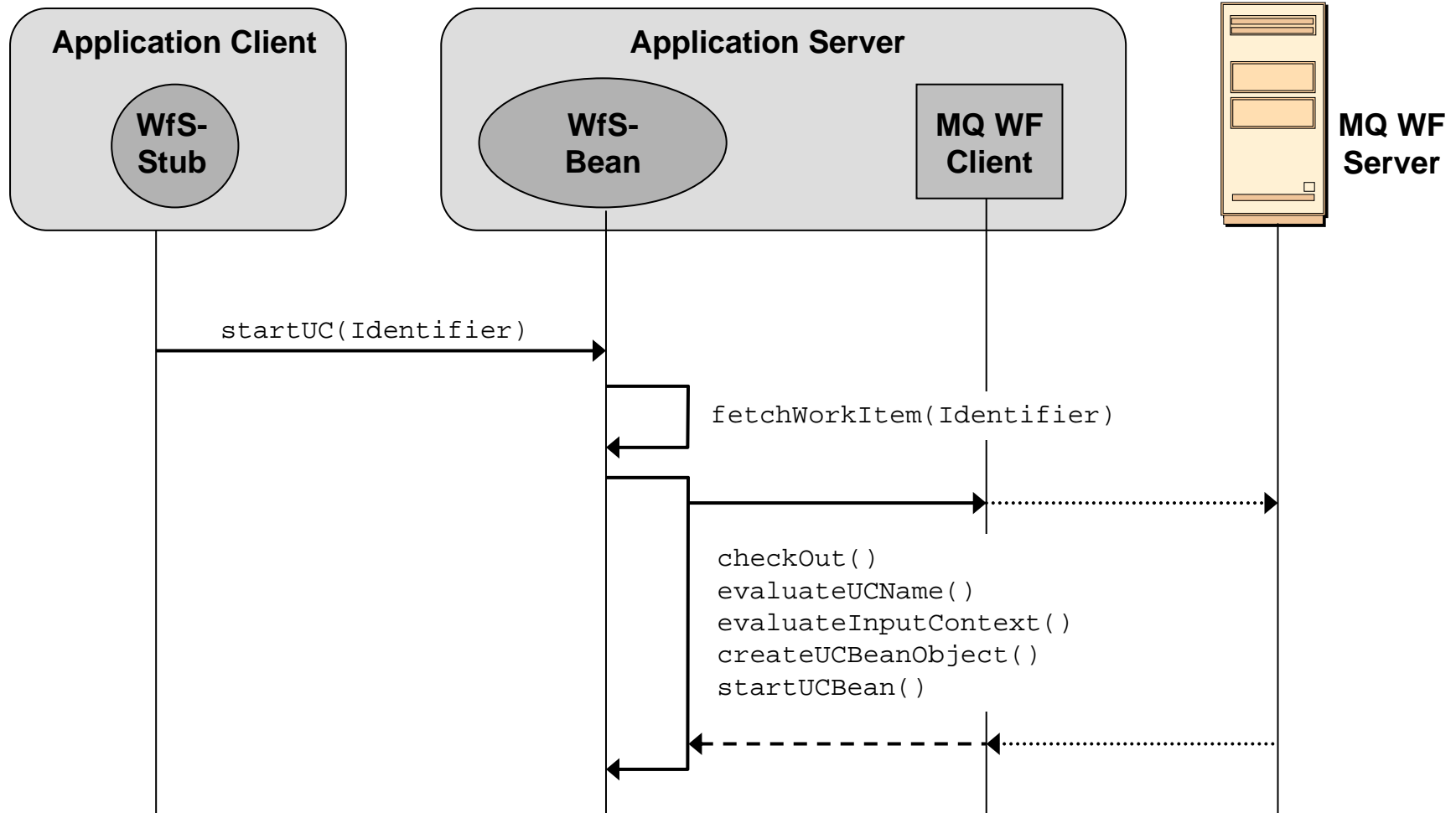
- WebSphere Application Server 4.0 & MQ Workflow 3.2
- Stateful Session Beans
- Caching Adapter Objects – Presenting Item Data Objects
- Item Identifiers
- Instantiating the Use Cases (Check out, Check in, Transferring Context Data)



Refreshing the Worklist



Starting a Use Case



Context Data Mapping

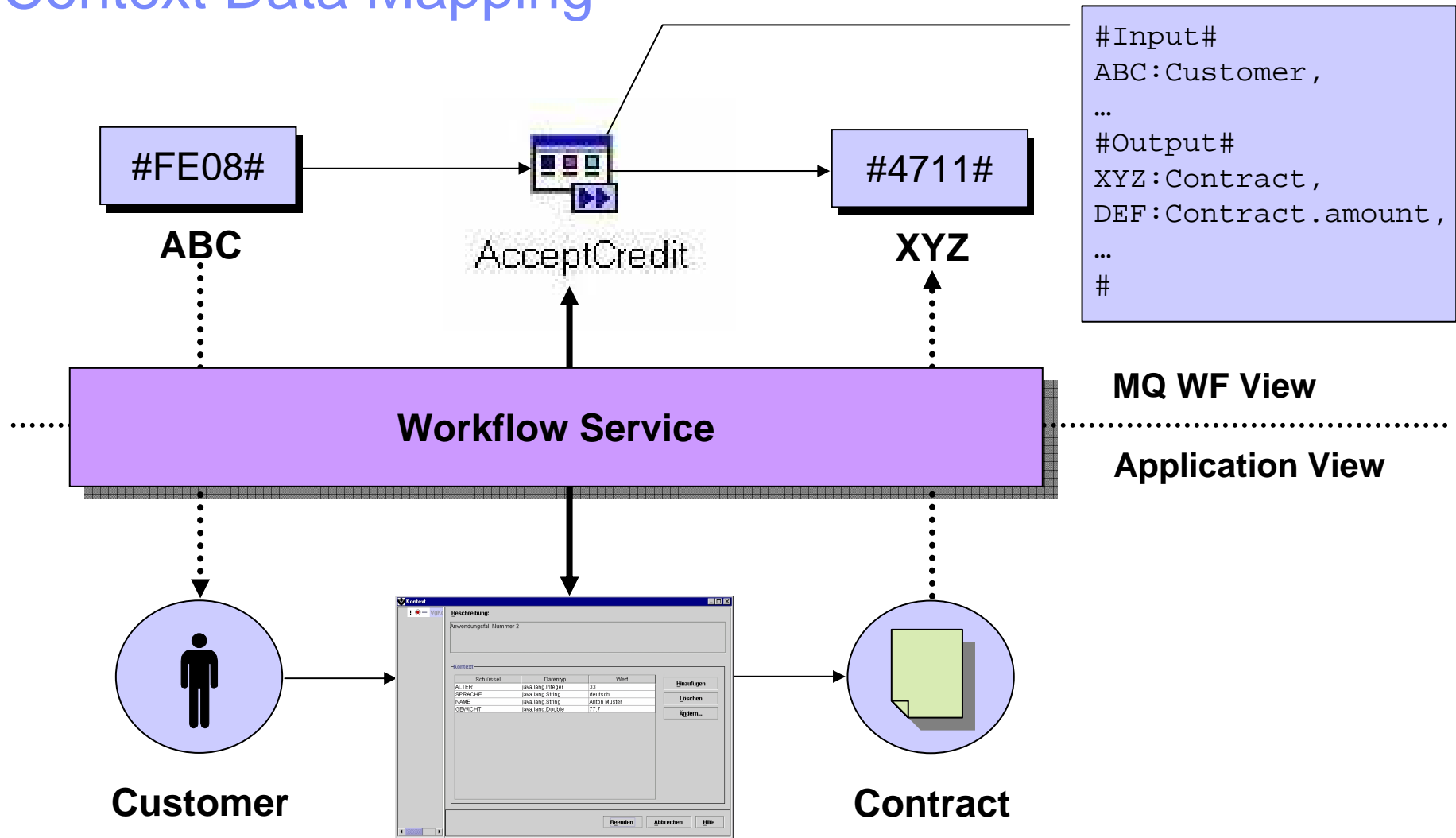


In MQ WF every activity has Input- and Output-Variables with one of the following types: String, Float, Long, Binary.

- 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?



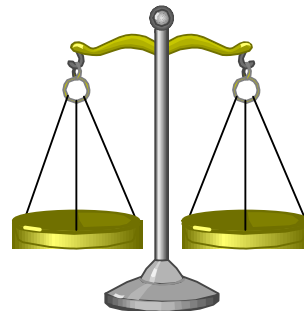
Context Data Mapping



Authorization

WebSphere MQ Workflow

(Authorizations:
Processes,
Work Items)



User Access Management

(Application specific
– e.g. LDAP)



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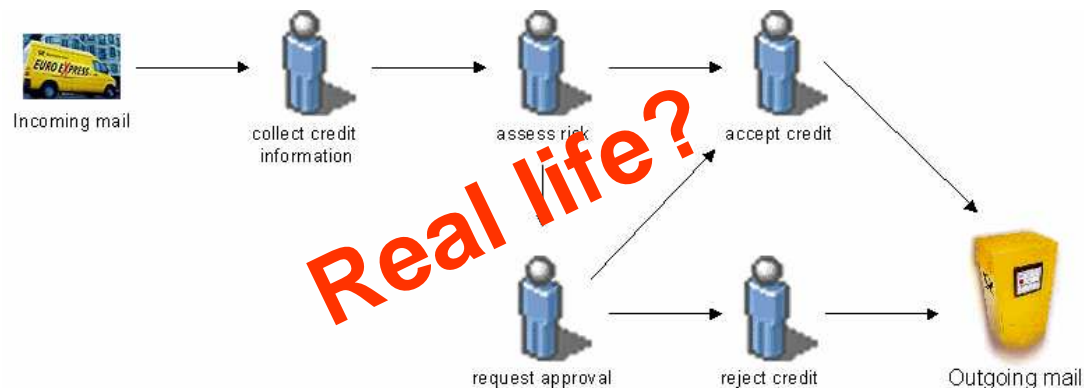
Scheduling Service - Meeting real life demands

Business Process Requirements

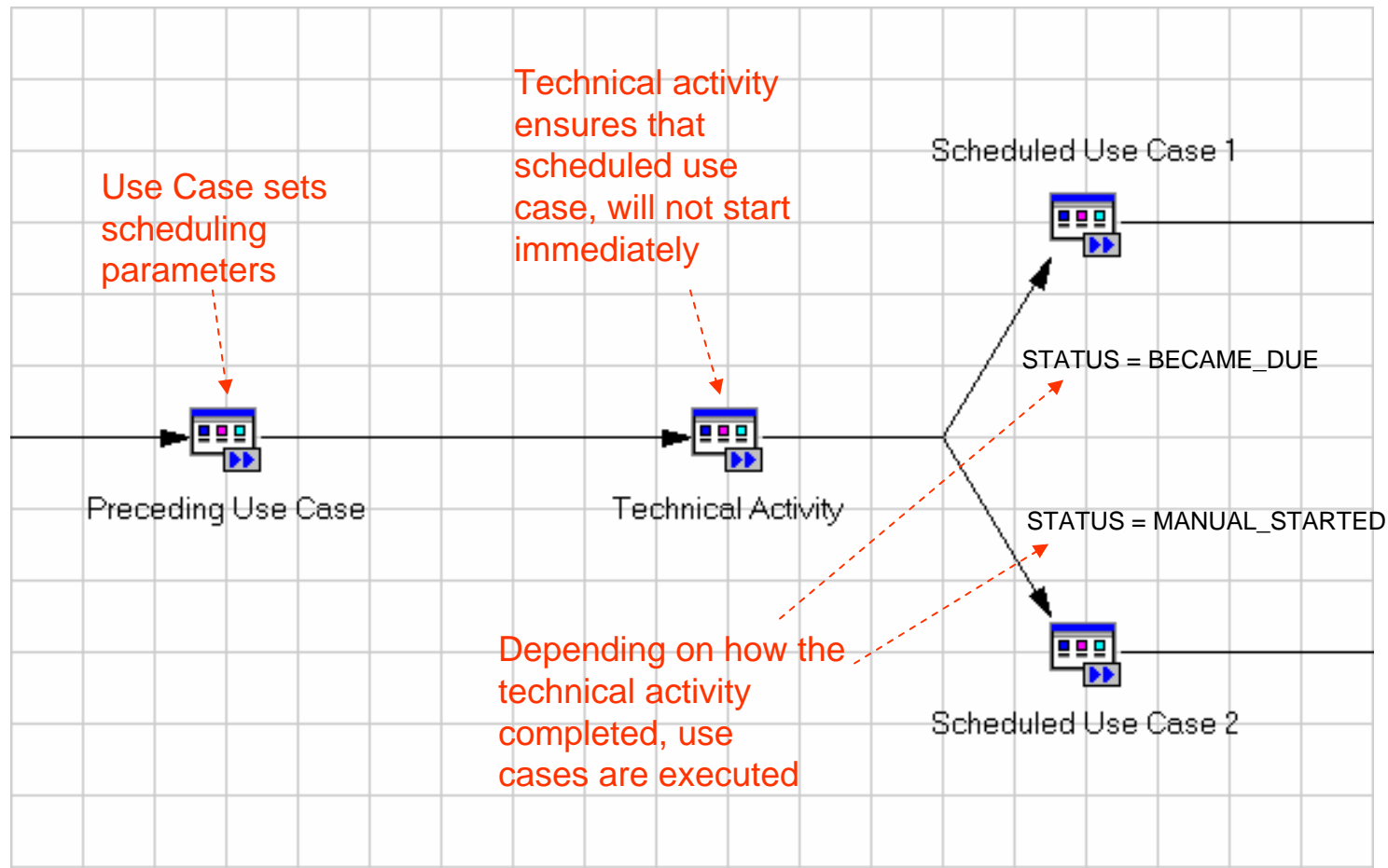
- Most processes are still focused on documents. Returning documents trigger continuation of running process(es)
- Processes may require delay between business activities (e.g. sending invoice and checking of payment two weeks later)

Restrictions of WebSphere MQ Workflow

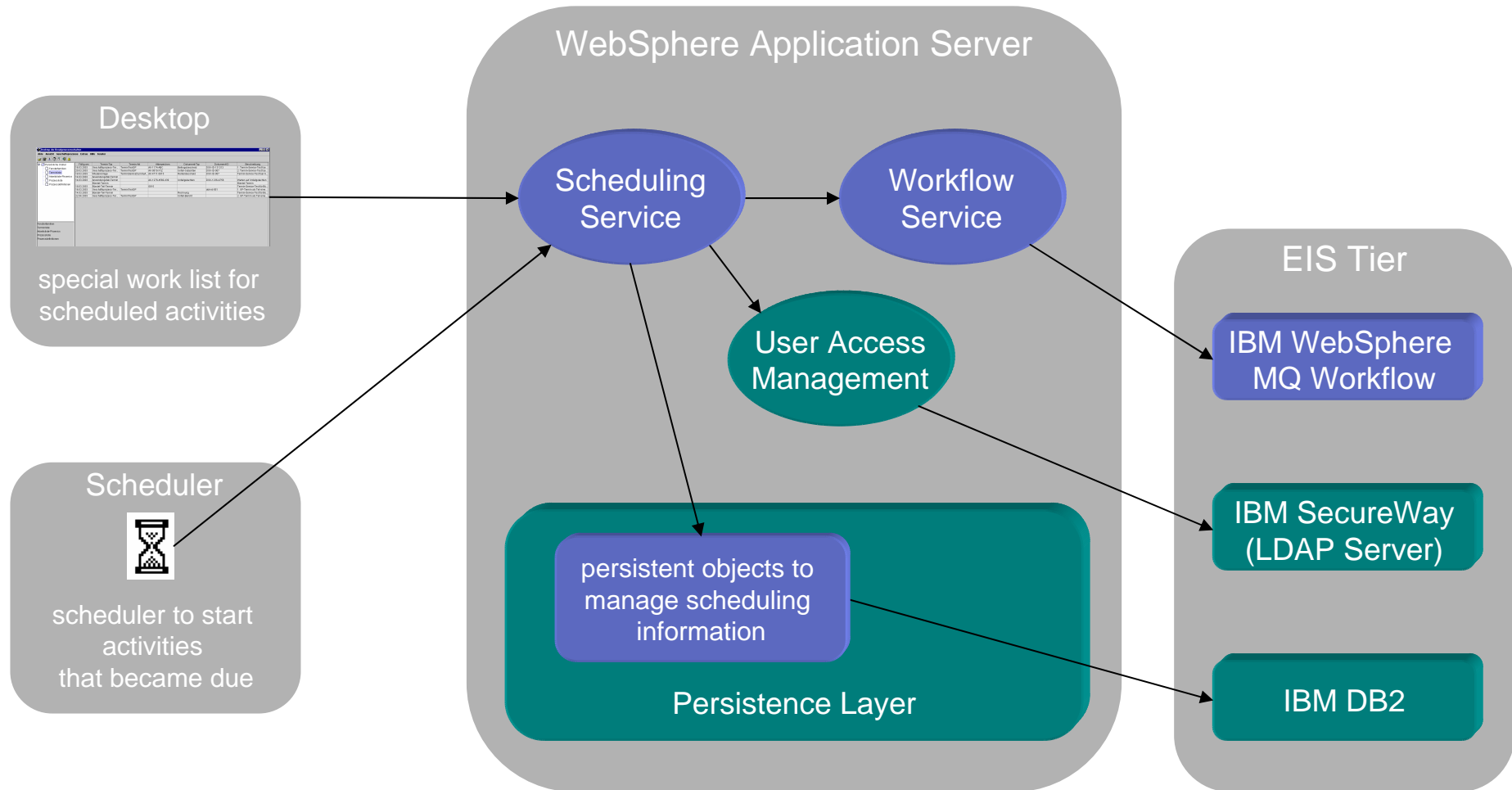
- No time- / date-triggered business activities
- No triggers to continue suspended processes
- No support for start of new business processes at a certain point of time



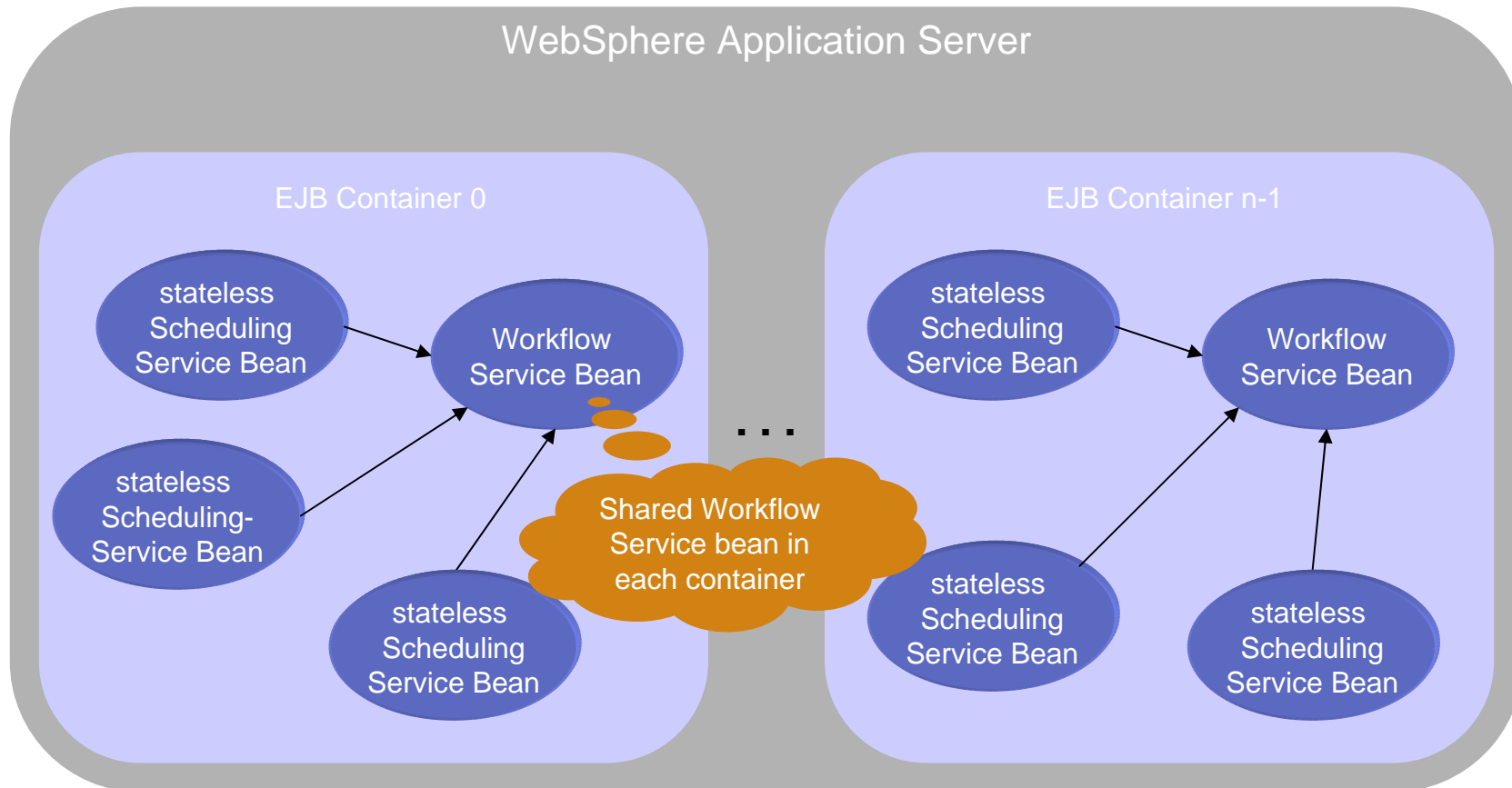
Modeling Scheduled Use Cases



Scheduling Service Architecture



How to access WebSphere MQ Workflow?



Scheduling Service Programming Model

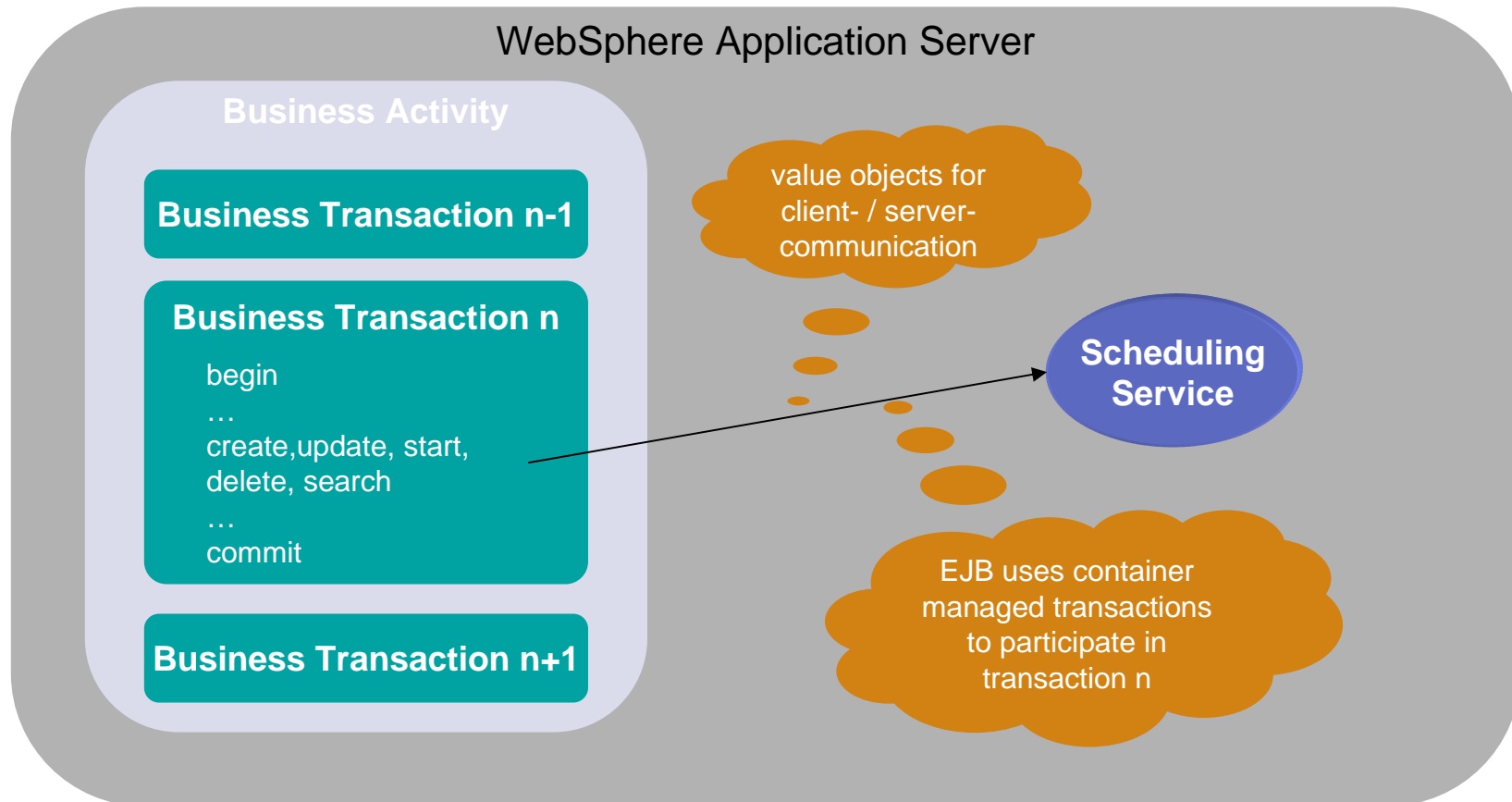


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❖ **Summary and Conclusion**

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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.



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