Open Source SOA Realized

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Aim of This Session

Learn how to take a bit-by-bit approach towards implementing SOA, using open source frameworks and products and learn how a basic SOA can be established with few components.

Agenda
Part 1—Overview

Overview of a real world Open Source SOA implementation

Agenda: Part 2—The Enterprise Service Bus

Using WS-BPEL

Using Business Rule Engines to leverage the myriad of business rules

Code examples of using WS-I Basic (Document/Literal), WS-BPEL and Business Rule Engines

Agenda:
Part 3—The Front End View

Using Java™ Specification Request JSR–168 portlets with AJAX

Adding WSRP to your front-end

Code examples of using JSR–168 portlets with WSRP and Ajax

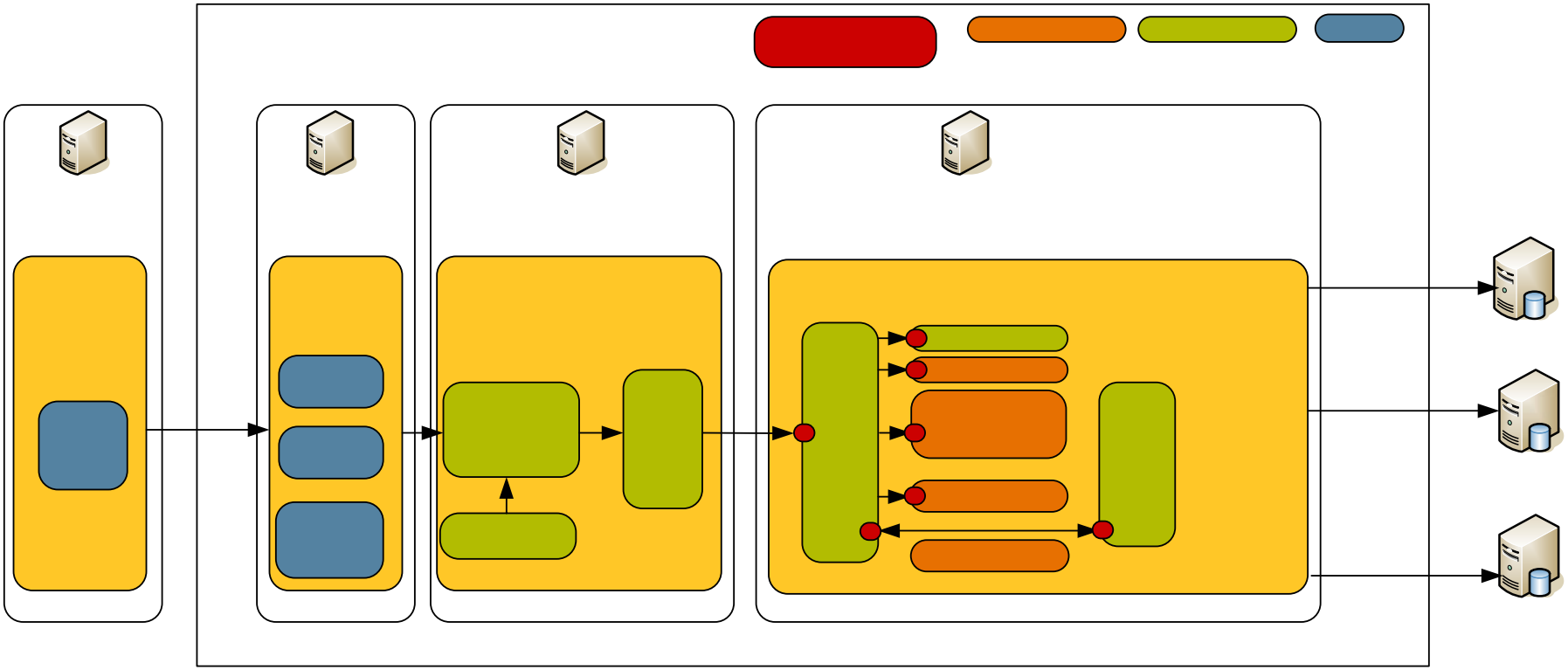
Agenda:
Part 4—Conclusion

Lessons learned using open source as the core building blocks

Summary

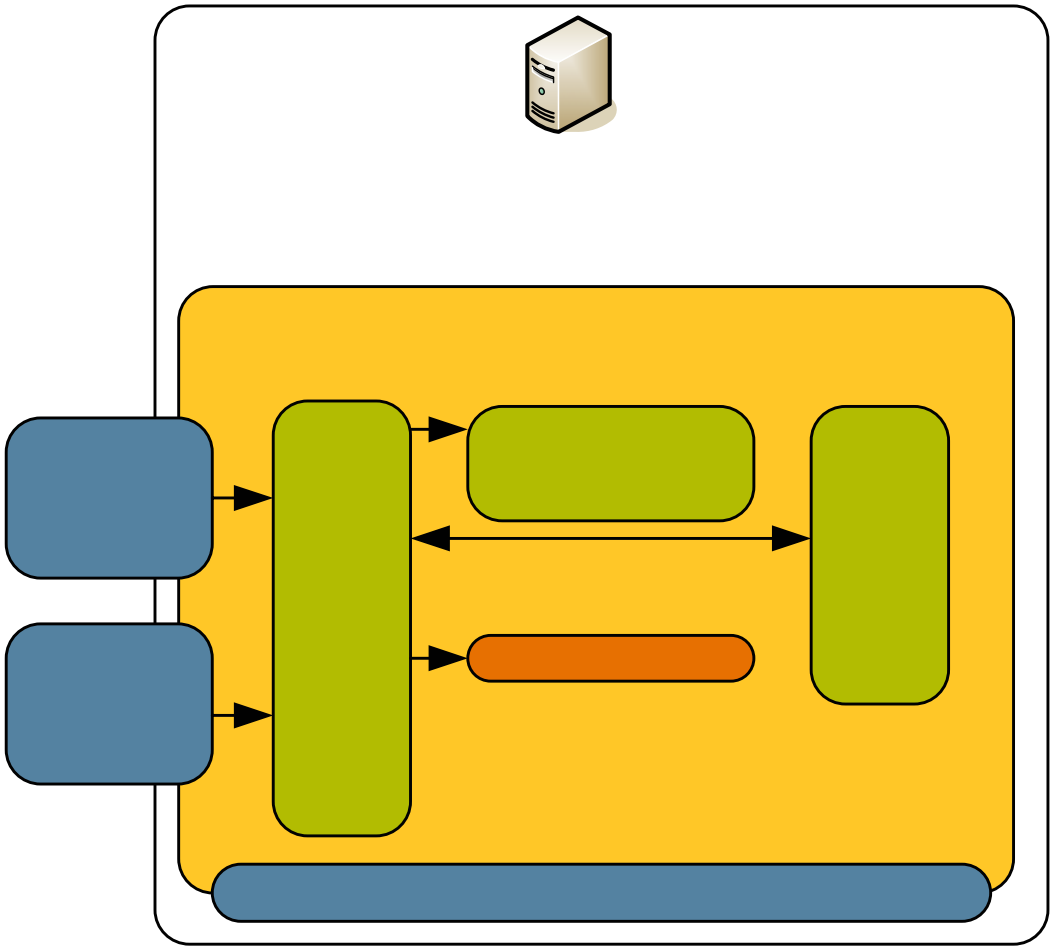
Part 1—Overview

Open Source SOA Implementation Overview



Part 2—The Enterprise Service Bus

The ESB View



Using Business Rule Engines

When and how to use business rule engines

- Why use a rule engine?
  - Declarative programming
  - Domain Specific Languages
  - Logic and data separation
  - Speed and scalability
  - Central rule repository

JBoss Rules

JBoss Rules 3.0.5 a.k.a. Drools 3.0.5

- Besides the points mentioned, JBoss Rules gave us
  - IDE integration with Eclipse
  - Explanation facilities
  - DSL
  - And will give us: Business Rules Management System
  - BRMS is based on: Apache Jackrabbit—
    The Open Source content repository for Java technology (JSR–170)

Using WS-BPEL

Which way to go when choosing WS-BPEL implementation

- Why BPEL?
  - Yet another language to master
  - Web Service orchestration
- Choice of BPEL framework
  - Active BPEL (mature framework)
- BPEL is for developers

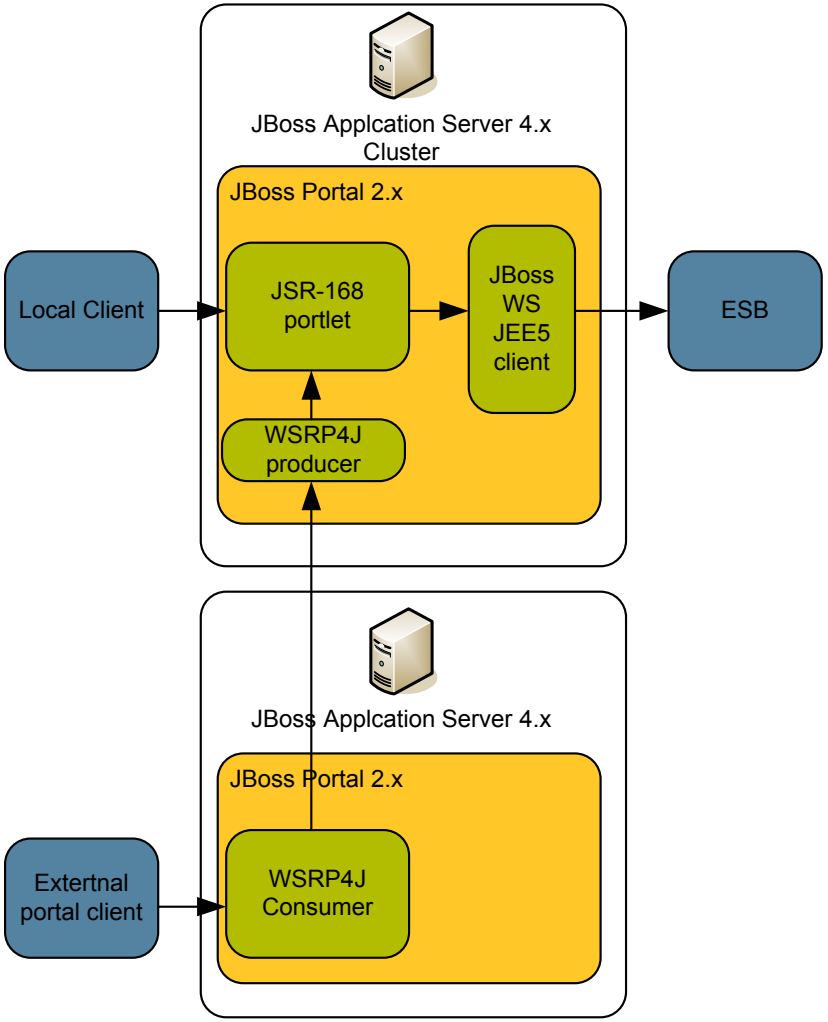
DEMO

Enterprise Service Bus example using:

- MULE Enterprise Service Bus
- Active BPEL
- JBoss Rules 3.0

Part 3—The Front End View

The Portal View



Using JSR–168 Portlets With AJAX

Portlets and Ajax

- JSR–168 portlets
- AJAX enabling the GUI

Using JSR–168 Portlets With WSRP and AJAX

WSRP exposure of the front end is not necessarily a walk in the park

- WSRP enabling the portlet
- WSRP and AJAX
- WSRP resource URLs
- WSRP maturity
- It's about getting pragmatic solutions to such a daring specification

DEMO

Front-end example using:

- Basic JSR–168 Portlet in JBoss Portal Server
- Java™ APIs for XML Web Services/JAXB 2.0 software
- AJAX enabling with Prototype and script.aculo.us
- WSRP enabling with Apache WSRP4J

Part 4—Conclusions

Summary

- Take some time upfront to define the success of your SOA implementation, what do you need?
- Then take a bit by bit approach towards SOA enabling your business using:
  - Open Source Enterprise Service Bus
  - Open Source Web Service Frameworks
  - Open Source Business Rule Engines
  - Open Source Portals
  - Open Source WSRP Implementations
- Don’t be afraid, the open source way gives you an insightful and open approach
- Open source is a move towards responsibility in the developer community, decision making is propagated to you

Summary

AND… !

DO try this at home !

For More Information

Go here

- http://www.jboss.org
- http://ws.apache.org/axis/
- http://xfire.codehaus.org/
- http://java.sun.com/webservices/jaxb/
- http://java.sun.com/javaee/technologies/javaee5.jsp
- http://www.active-endpoints.com/active-bpel-engine-overview.htm
- http://mule.mulesource.org/
- http://wiki.jboss.org/wiki/Wiki.jsp?page=JBossRules
- http://portals.apache.org/wsrp4j/
- http://script.aculo.us/

Q&A

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