

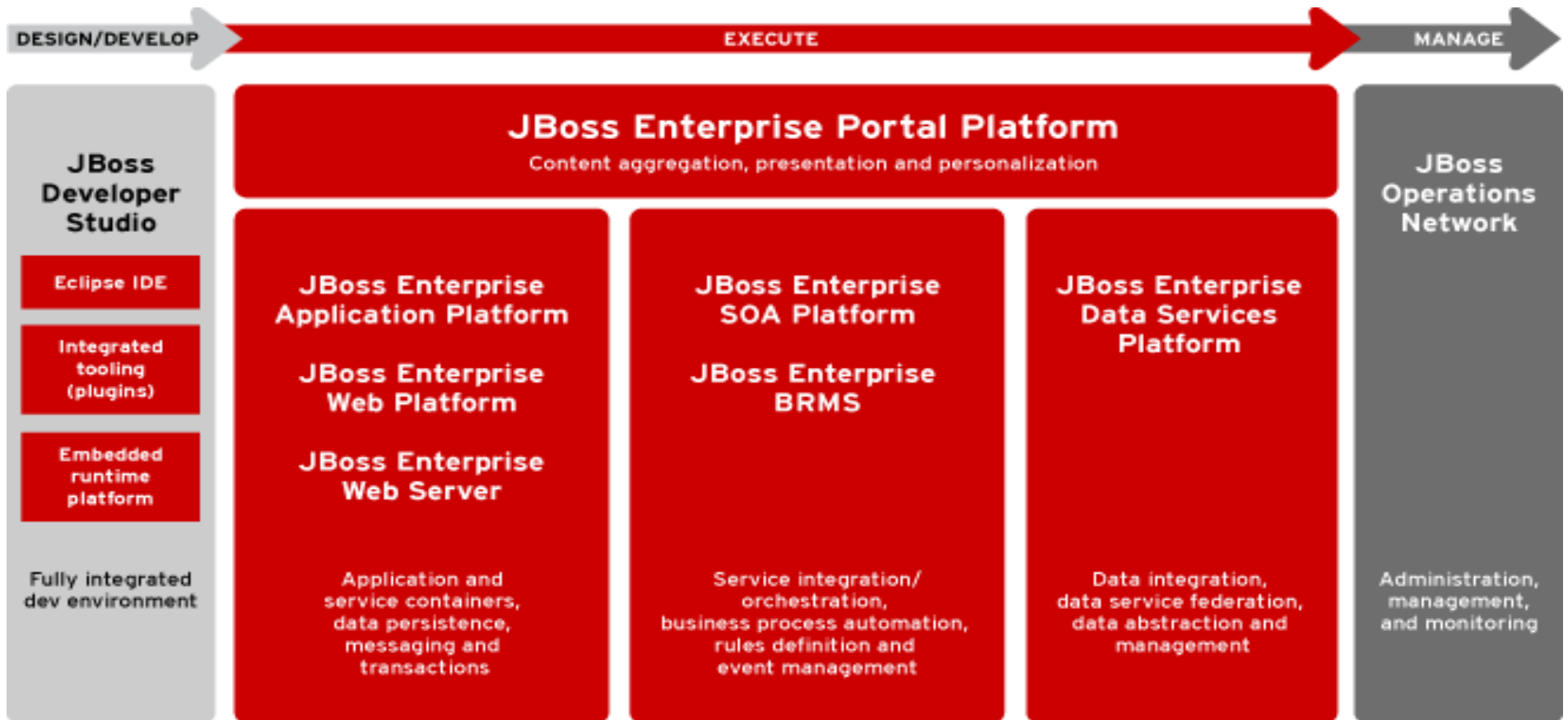
JBoss Enterprise Platforms Version 5

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Agenda

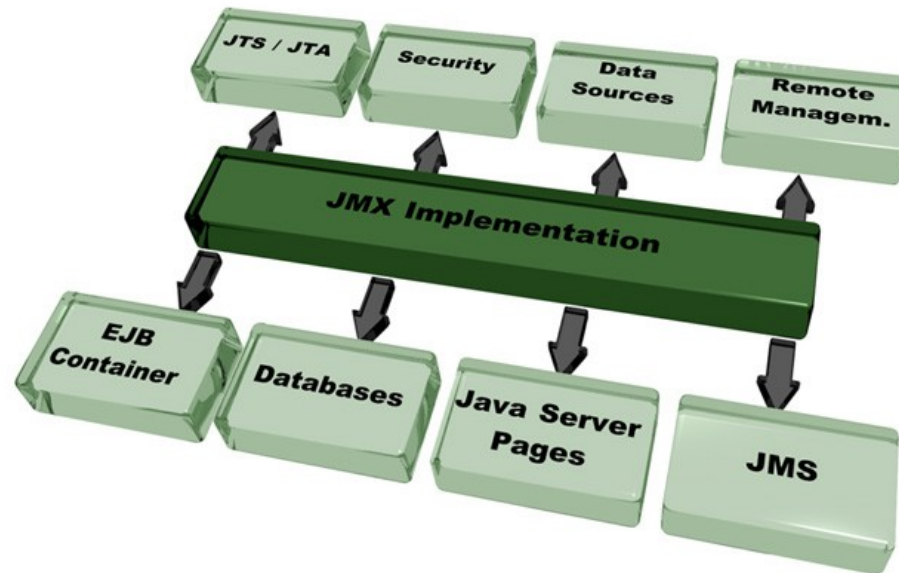
- JBoss Application Server 5
- JBoss Open Choice
- JBoss Enterprise BRMS
- JBoss Enterprise SOA Platform 5 – what's new



JBoss Architecture

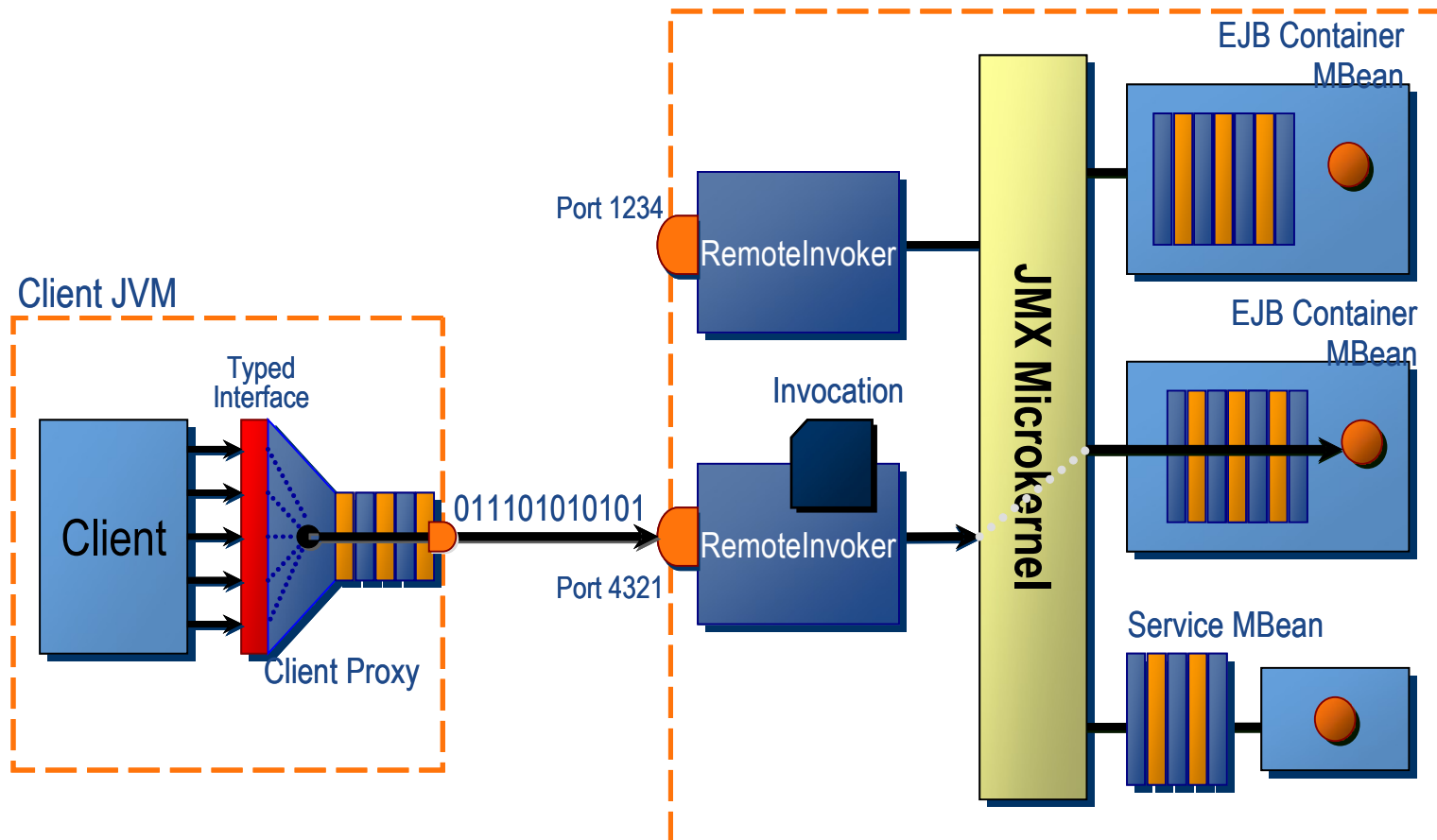
■ The JBoss Kernel

- A lightweight component framework that wires together a set of Services.
- Services are de-coupled, invocations are routed through an internal bus.



Inversion of Control IoC

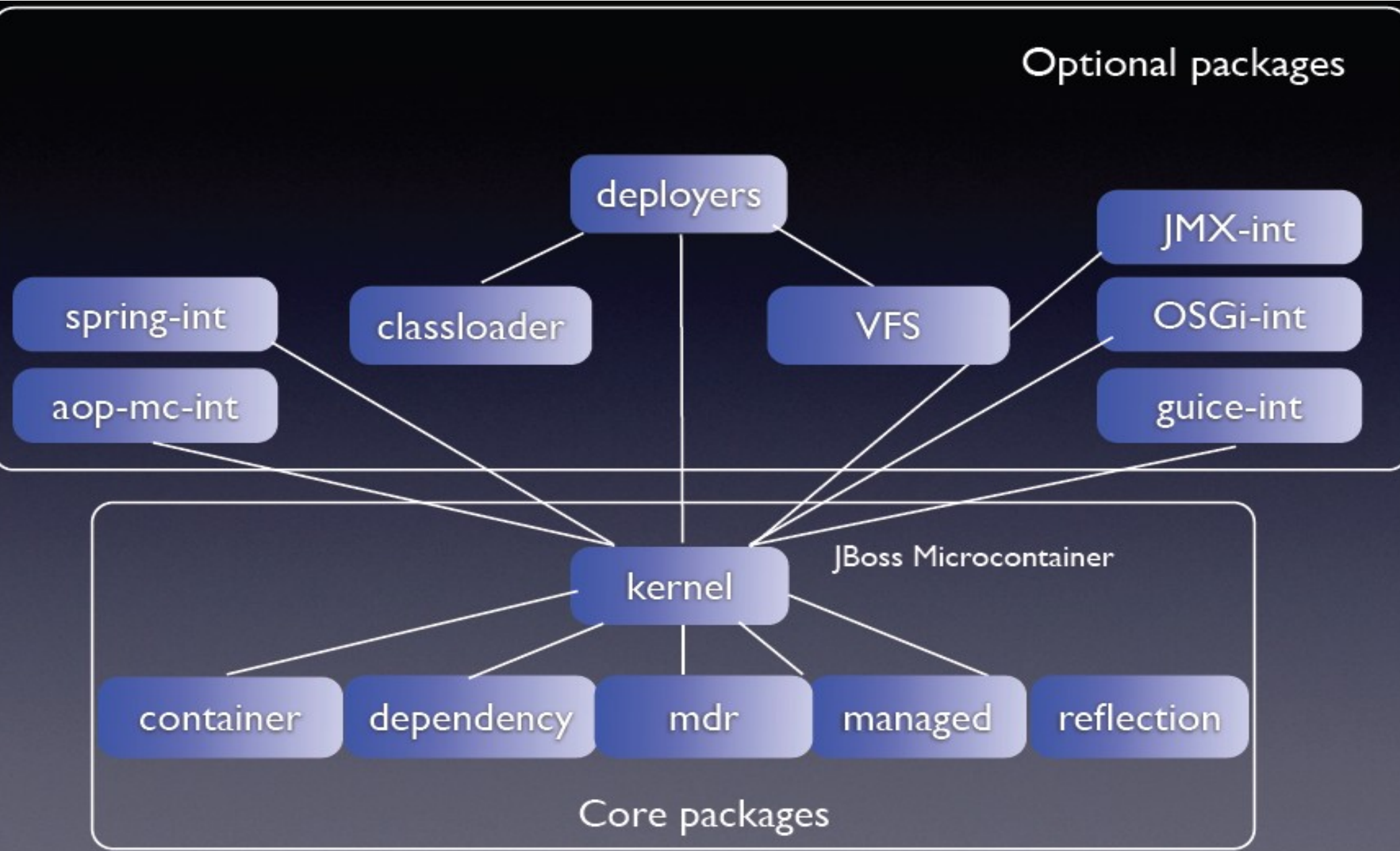
- Aspect Oriented Design
 - Interceptors applied using Dynamic Proxies and traditional OOD techniques



JBoss AS 5 Innovations

- Next Generation POJO-based Kernel
 - Wire together POJOs services, add behaviour with AOP
 - Small, Standalone, Embedable, Testable
- Configuration API
 - Persisting configuration changes
 - Easy to provide advanced tool support
- Extensibility
 - Support for different component models: JMX, Spring, OSGi, Guice
 - Dependencies management
 - Clean internal APIs/SPIs
- Runtime Embedability
 - No JMX dependency, many environments (e.g. J2ME)
 - Standalone projects

Components



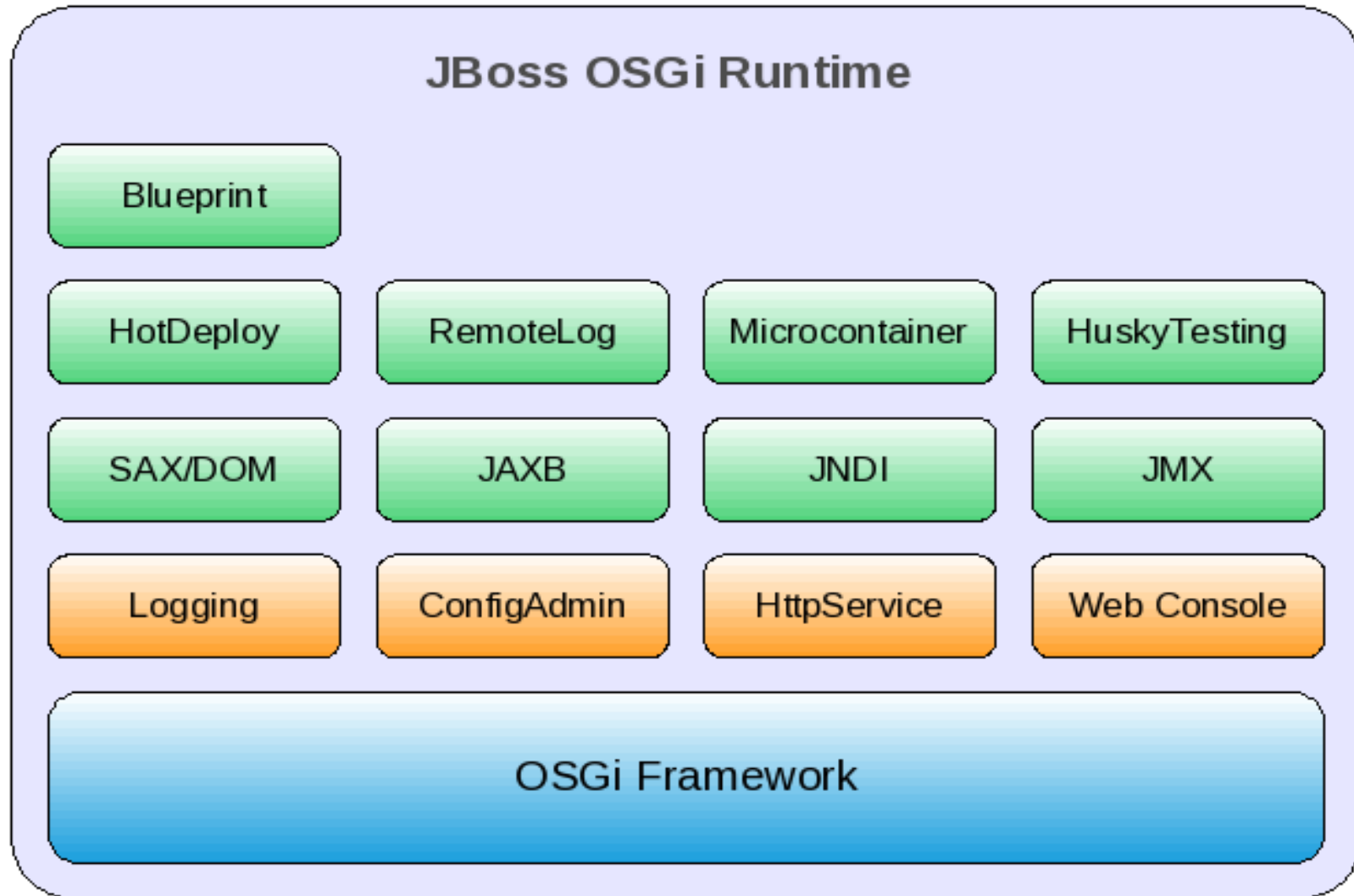
JBoss AS 5 Modules

- Next level of every major subsystem
 - Clustering Infrastructure
 - Caching
 - Messaging Service
 - Security Modules
 - Transaction Manager
 - Web Services Stack
 - Web Server
 - ...

OSGi

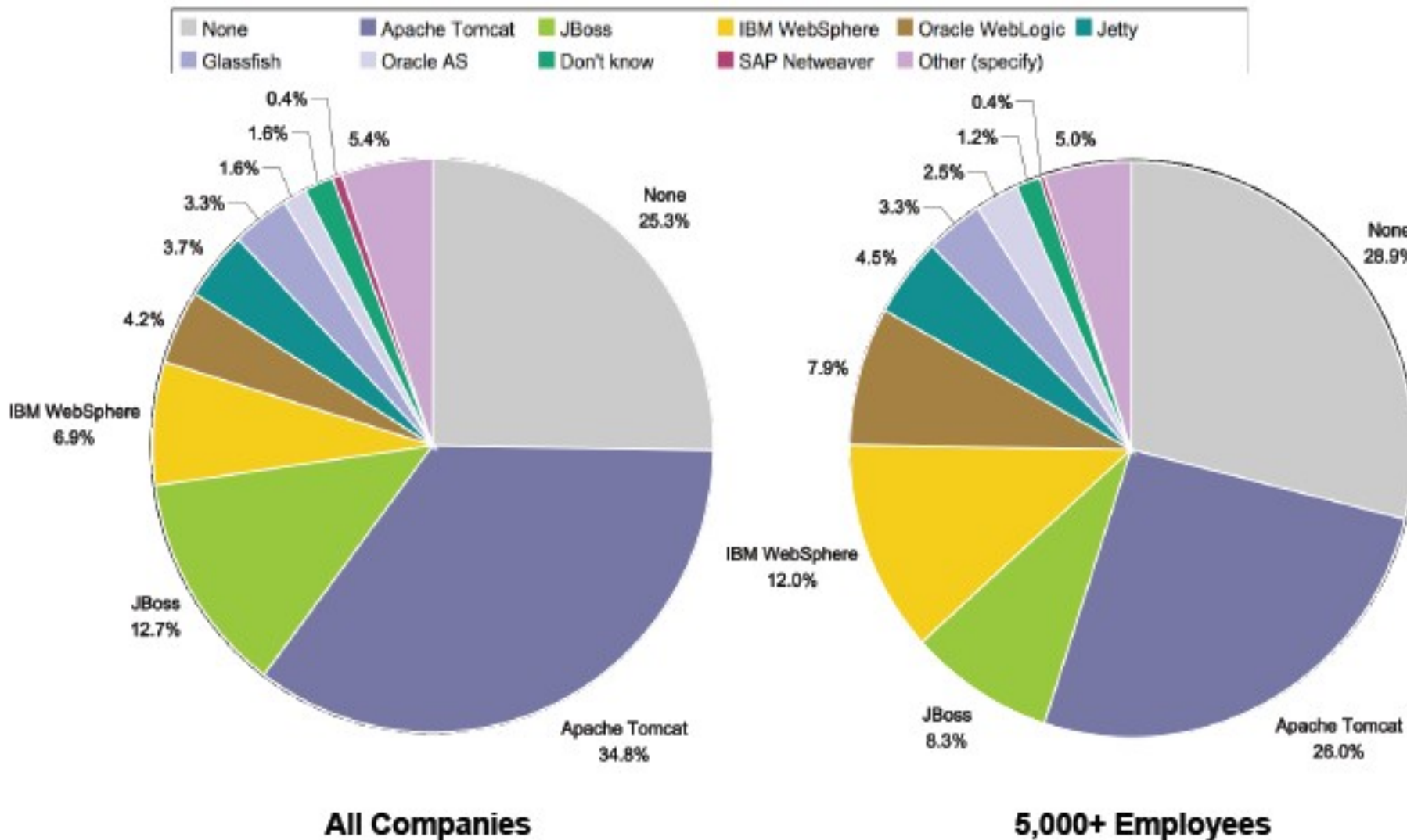
- Open Service Gate Initiative, since 1999
- Eclipse Equinox
- Apache Felix, Knopflerfish
- JSR 291
- OSGi Bundle repository OBR (2879 bundles), Eclipse Oscar (200 bundles), Knopflerfish (50 bundles)
- OSGi Enterprise Expert Group EEG
 - Enterprise-class features: scalability, reliability, availability
 - Not limited to Java
 - Distributed, federated

JBoss OSGi

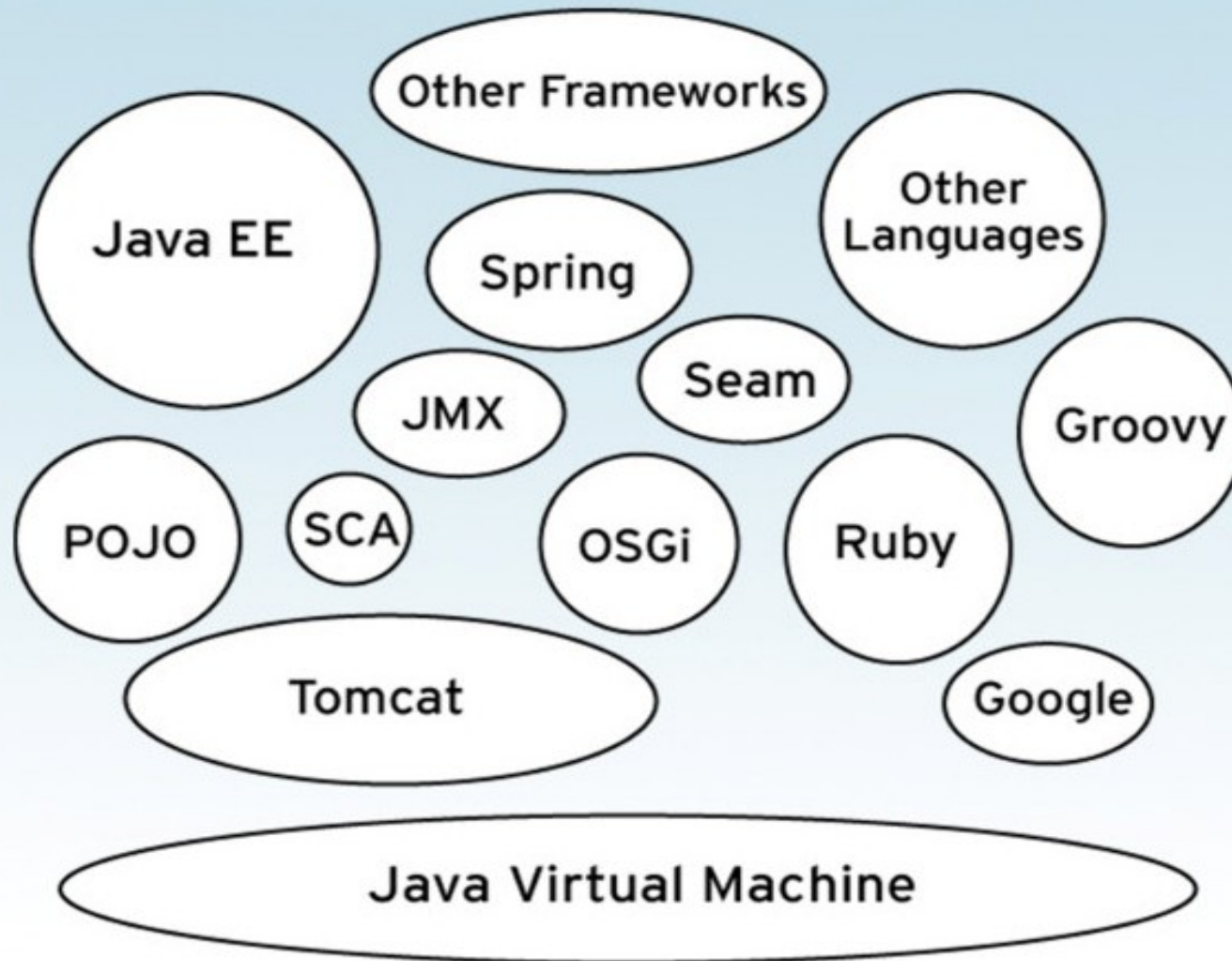


JBoss Open Choice

Eclipse Survey 2009



Enterprise Java Today & Tomorrow



JBoss Open Choice Architecture

APIs / Programming Models
(POJOs, WS, Rest, Java EE, Spring,
Groovy, jRuby)

Transactions

Messaging

Caching

Remoting

Web Services

Clustering

Security

Persistence

Core Enterprise Services

Microcontainer
(Dependencies, Lifecycle, Management,
Class-loading)

JVM

- Next generation app server architecture
- Extreme configurability
- Minimalist micro-kernel - separates core middleware services - modularity
- Micro-kernel support many components models
 - JMX
 - OSGi
 - POJO
- Common management infrastructure

New JBoss Platform Products

Frameworks: Seam, Hibernate, Spring, Struts,
Google Web Toolkit, RichFaces

**JBoss Enterprise
Web Server 1.0**

Simple
No Enterprise Services

**JBoss Enterprise
Web Platform 5.0**

Simpler APIs
Enterprise Scale

**JBoss Enterprise
Application
Platform 5.0**

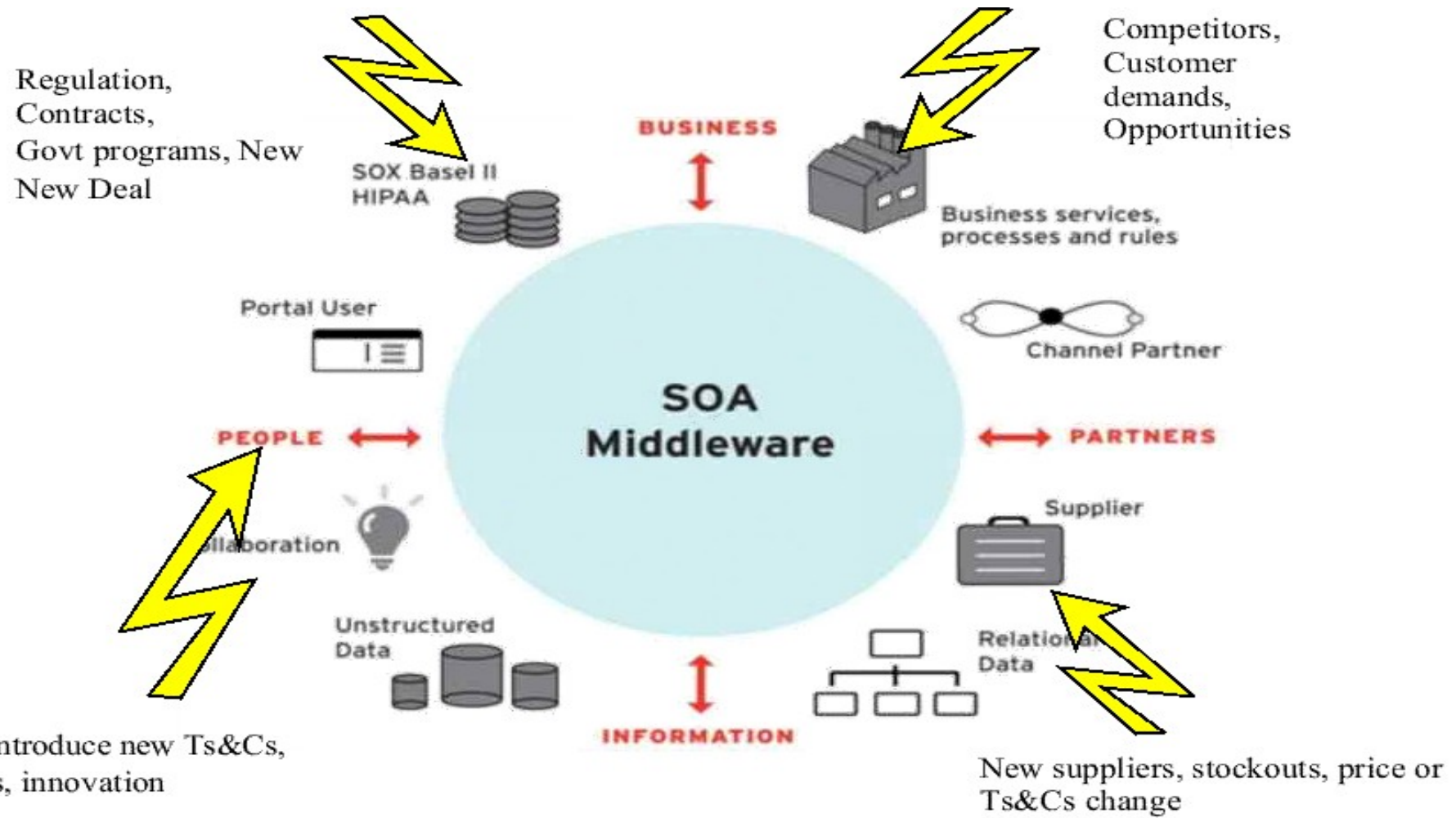
High level transactions
Enterprise Scale
Requirements

Product Components

- JBoss Enterprise Web Server 1.0
 - Apache Tomcat 6.0
 - Apache Tomcat Native 1.1
 - Apache Web Server 2.2
 - mod_jk 1.2.27
- JBoss Enterprise Web Platform 5.0
 - JBoss AS web profile
 - Hibernate, Seam
 - JBoss Web Framework Kit (GWT, RichFaces, Spring, Struts)
- JBoss Enterprise Application Platform 5.0
 - JBoss AS
 - Seam, Hibernate
 - JBoss Web Framework Kit

JBoss Enterprise BRMS

Business Agility

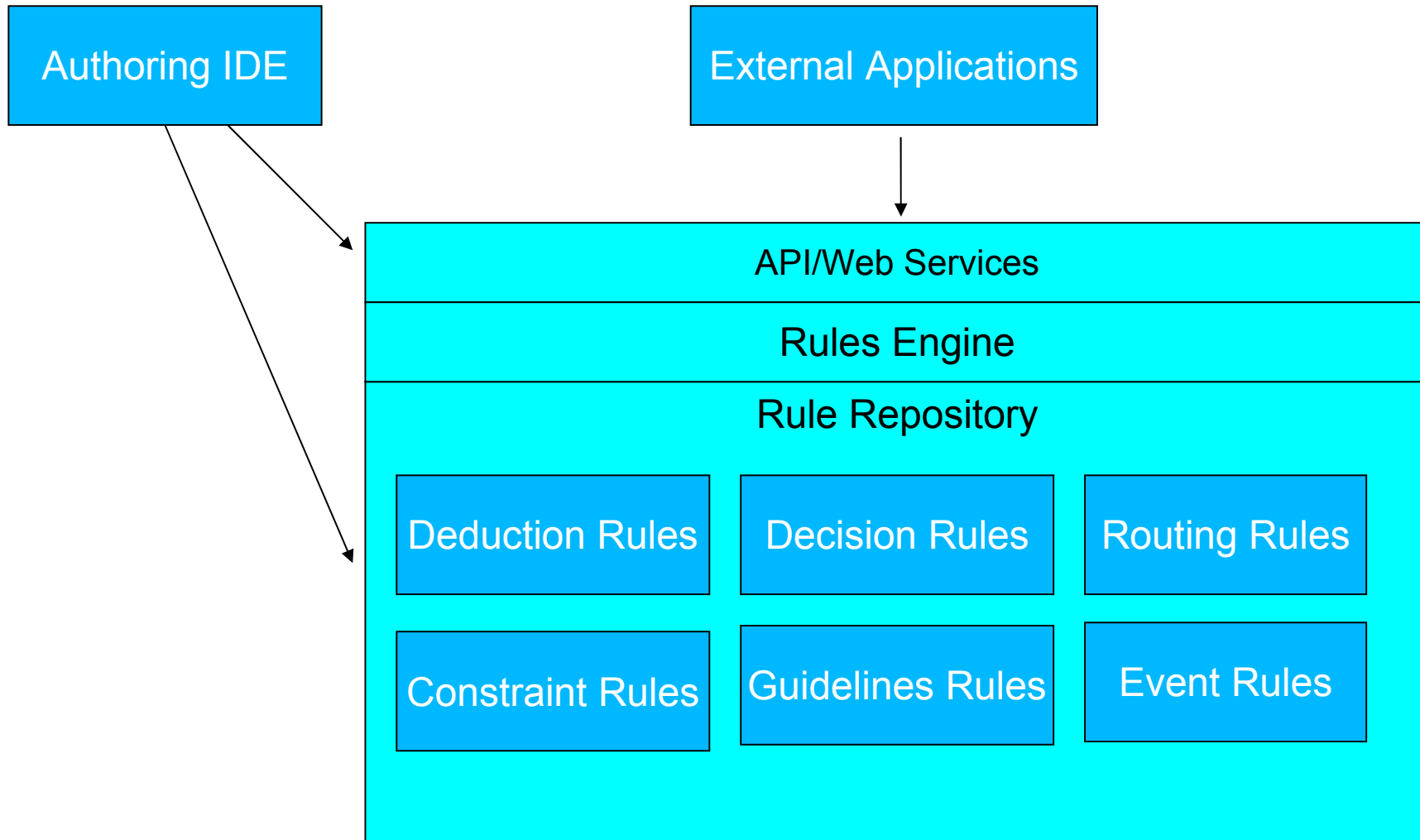


Integrated Value Chain

- But what happens when change strikes?
- BRMS enables rapid change



Enterprise Decision Management



BRMS Console

JBoss Business Rules Management System - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://localhost:8080/drools-jbrms/org.drools.brms.JBRMS/JBRMS.jsp#Rules

Info Rules Packages Deployment Admin

Find and edit rules.

Explore Rule_2 MyDT Rule_1

Status: [Draft] Save changes Copy Archive

IF

- Person
 - age less than or equal to 42
 - age greater than 21
- Board [b]
- There is no Board
 - cost greater than 1200

THEN

- Set [b] cost 1200

(options)

View source Validate

<documentation>

Rule_1

Categories: Finance HR/Awards/QAS

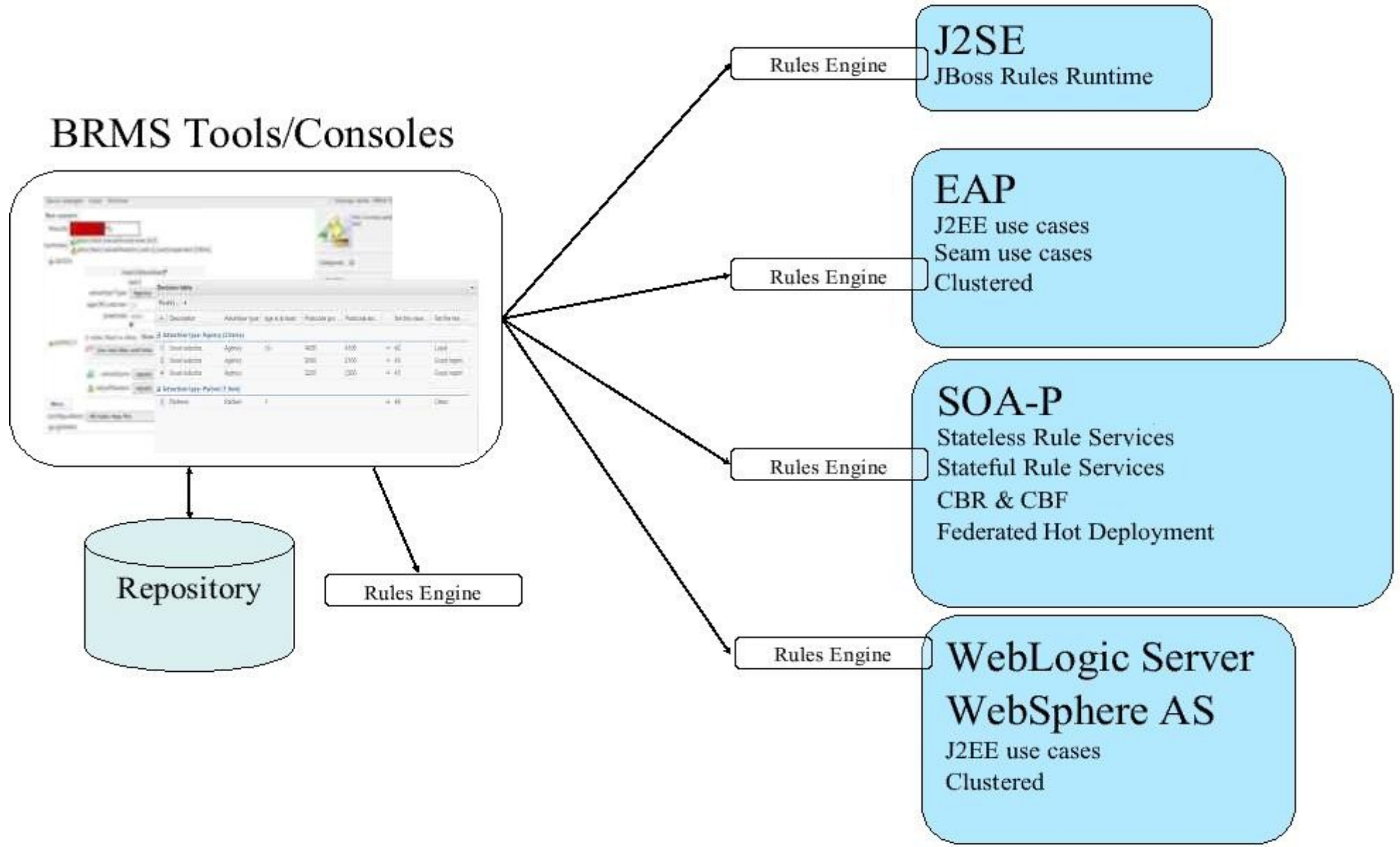
Modified on: Thu 10 May 2007 03:16:47 PM EST
by: michael
Note: whoops
Version: 5
Created on: Thu 10 May 2007 10:49:41 AM EST
Created by: michael
Format: brxml

Package: DemoPackage
Subject:
Type:
External link:
Source:

Version history

Done

BRMS Deployments



BRMS - DRL

```
rule "Customer Platinum Status"  
  when  
    customer: Customer(status > 50)  
    order: OrderHeader(orderPriority == 3)  
  then  
    order.setOrderDiscount(8.5);  
end  
rule "Customer Gold Status"  
  when  
    customer: Customer(status > 10, status <= 50)  
    order: OrderHeader(orderPriority == 2)  
  then  
    order.setOrderDiscount(3.4);  
end
```


Decision Tables

	B	C	D	E	F	G	H
1							
4							
9	Base pricing rules	Age Bracket	Location risk profile	Number of prior claims	Policy type applying for	Base \$ AUD	Record Reason
10	Young safe package	18, 24	LOW	1	COMPREHENSIVE	450	
11			MED		FIRE_THEFT	200	Priors not relevant
12			MED	0	COMPREHENSIVE	300	
13			LOW		FIRE_THEFT	150	
14			LOW	0	COMPREHENSIVE	150	Safe driver discount
15	Young risk	18,24	MED	1	COMPREHENSIVE	700	
16		18,24	HIGH	0	COMPREHENSIVE	700	Location risk
17		18,24	HIGH		FIRE_THEFT	550	Location risk
18	Mature drivers	25,30		0	COMPREHENSIVE	120	Cheapest possible
19		25,30		1	COMPREHENSIVE	300	
20		25,30		2	COMPREHENSIVE	590	
21		25,35		3	THIRD_PARTY	800	High risk



BRMS 5: Summary of Features

- Graphical User Interface and repository for Business Rule Editing, Versioning & Deployment management that is usable by the non-Java Programmer and non-System Administrator.
- Manages the following artifacts:
 - Rule Packages
 - Business Rules (via Guided Rule Editor)
 - Business Fact Model
 - Technical Rules (sync with Eclipse and/or BRMS UI)
 - Technical POJO Fact Model
 - Domain Specific Languages - DSL
 - Web-based Decision Table
 - Spreadsheet-based Decision Table
 - Rule Categories (for searching)
 - Users & Roles associated with rule lifecycle states
 - Rule promotion (dev, qa, production)
 - Test Scenarios

SOA 5: What's New & Cool

- **Based on jboss.org JBossESB 4.6 and 4.7+**
- **Based on jboss.org JBoss Application Server 5.x**
- **UDDIv3 (new web-based UDDI browser)**
- **HTTP**
- **Run-time governance via JON**
- **Web Service Proxy**
- **Seam+jBPM+Drools+ESB Use Cases**
- **BusinessRuleProcessor – entry-point (CEP Technology Preview)**
- **Certification on DB/2 and SQL Server**
- **Certification on HP SOA Registry Foundation**
- **Works with JBoss BPEL 2.0**
- **Works with MRG-M C++ Broker**
- **Regex & XPath Router**
- **XSLT Action (org.jboss.soa.esb.actions.transformation.xslt.XsltAction)**
- **Open JDK 1. 6**
- **Focus on Performance**

Q & A

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