



JBoss[®] Portal



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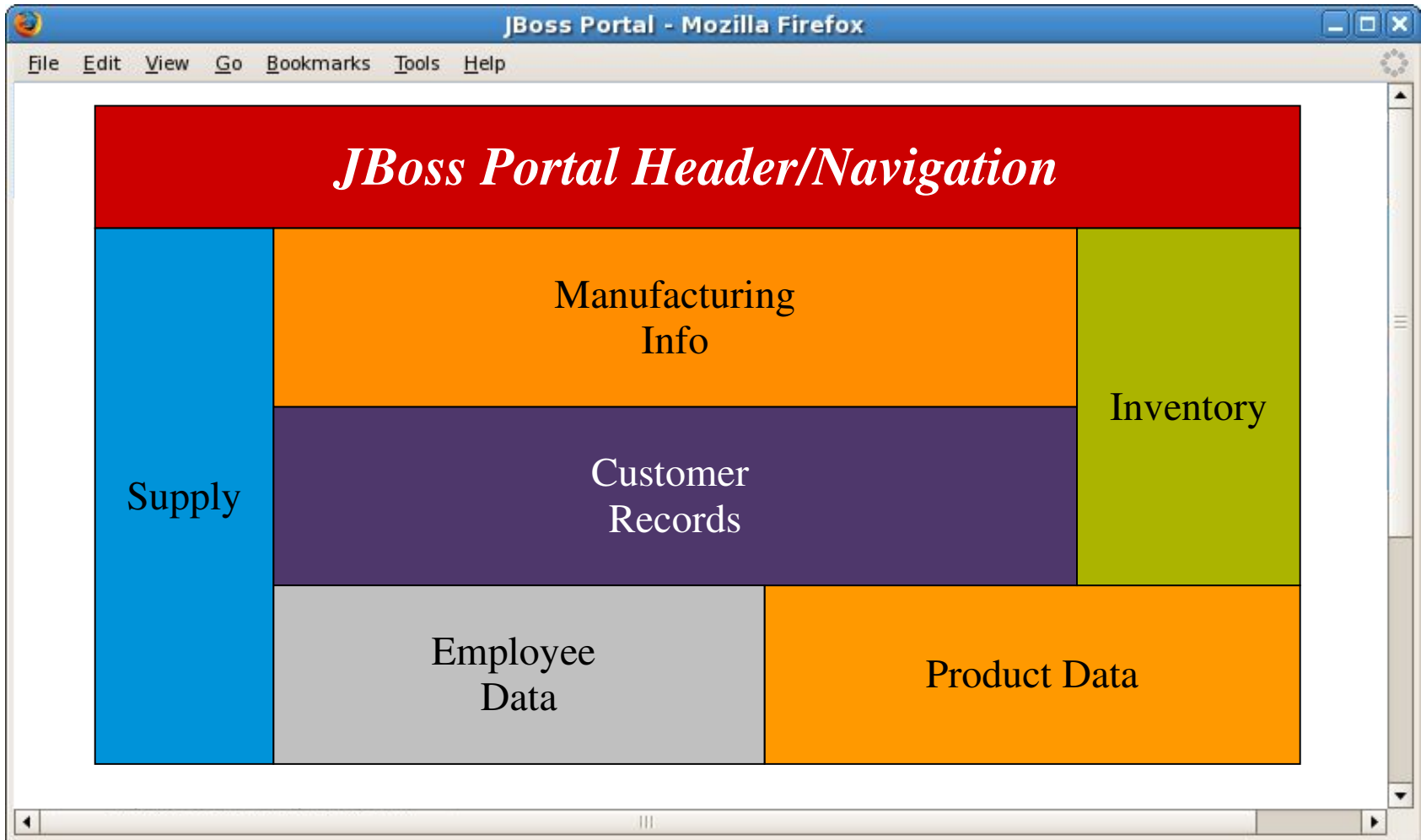
Agenda

- What is a portal, do i need one ?
- What's in JBoss Portal
- Around JBoss Portal
- JBoss Portlet Bridge
- Portlet 2.0 and JBoss Portlet Container

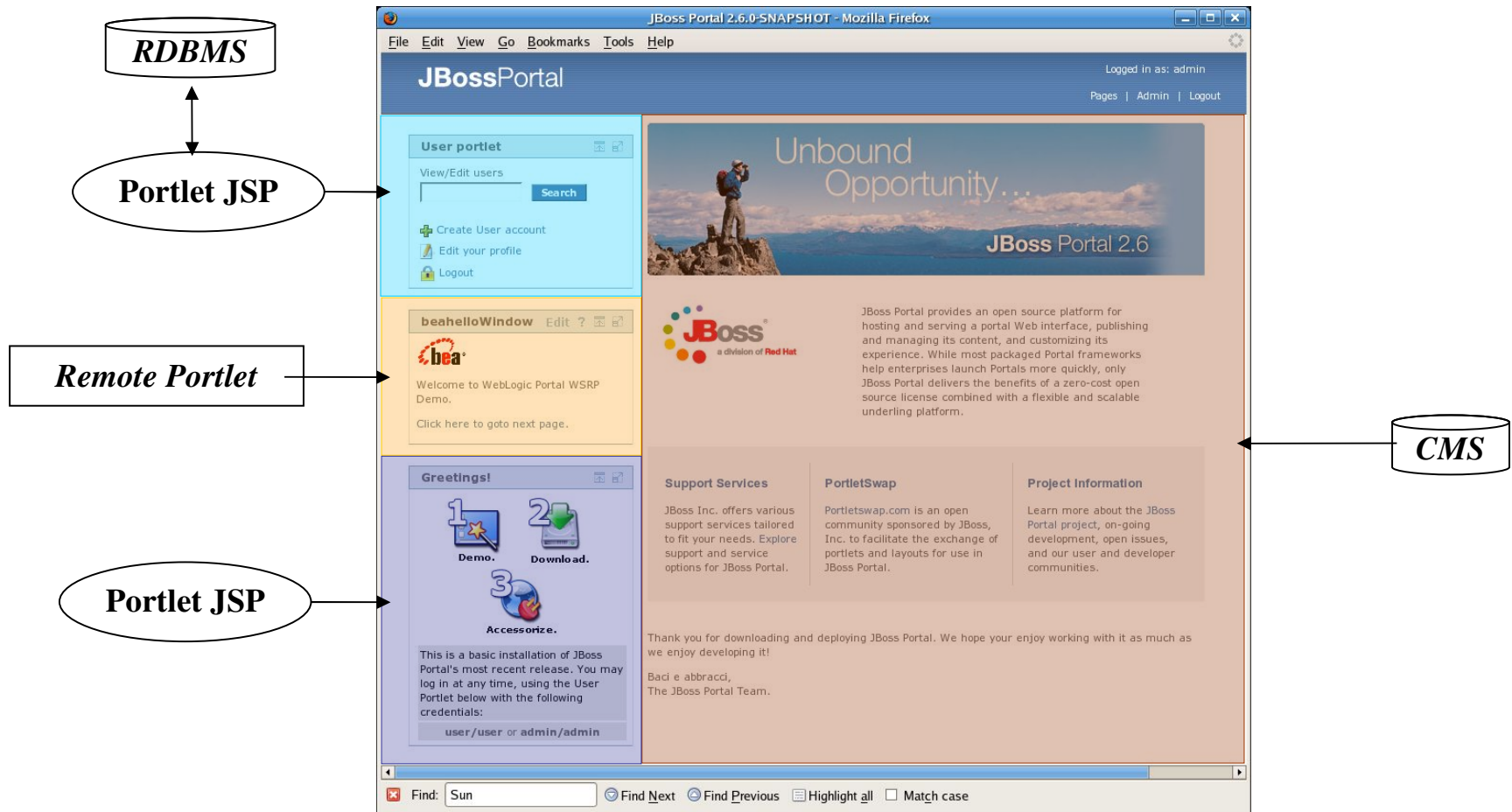


What is a portal ?

Portals provide **INTEGRATION and AGGREGATION**



Portal Consumption



Why use a portal ?

- Why not **just** use a 'regular' web framework ?
 - ✓ Requires all components to be written using the same technology
 - ✓ Enterprise environments, soon or later, deal with multiple technologies
 - ✓ Some web frameworks have support for portals
- Speed up deployment of a portal
 - ✓ Existing standard portlets

Integration of different technologies

JBossPortal

Home News Weather **Integration** struts Login

User portlet

Welcome Register

You are currently not logged in.

You can create an account.

Greetings!

1 Demo. 2 Download. 3 Accessorize.

This is a basic installation of **JBoss Portal 2.6.3-GA**. You may log in at any time, using the **Login** link at the top-right of this page, with the following credentials:

user/user or admin/admin

If you are in need of guidance with regards to navigating, configuring, or operating the portal, please view our online documentation.

WSRPWindow

Welcome to WebLogic Portal WSRP Demo.

Click here to goto next page.

HelloWorld JSF Portlet

First Name:

Last Name:

Next

PHP Poll Portlet

Which Portal do you prefer?


JBoss Portal

The portal of JBoss

Vote






View Results

I'm a CMS file! With a JBosslogo under



Programme TV


Mardi 22 Janvier 2008

	La Cautidienne 17:35 - 40 mn.	X
	Rex 17:10 - Serie de 45 mn.	X
	Des chiffres et des lettres 17:35 - 25 mn.	X
	L'île des âmes perdues 16:25 - Film de 105 mn.	X
	L'Europe, les nids dans l'eau	X

Bart Simpson Phrases

Die Simpsons - Der Film
Das Kinoabenteuer auf DVD. Nur 19.95 Fr!
Lieferbar ab sofort.

Ads by Google



Hey, it's a teddy bear...Ew! Gross! It's probably diseased or something...Here Maggie.


[View More Bart Simpson Phrases](#)

Struts MailReader Demo

MailReader Demonstration Application (Struts 1.2.4)

MailReader Demonstration Application Options

Integration of different technologies



The screenshot displays the JBossPortal interface with a navigation bar at the top containing 'Home', 'News', 'Weather', 'Integration', and 'struts'. A 'Login' link is located in the top right corner. The main content area is divided into several sections:

- User portlet:** A simple form with 'Welcome' and 'Register' buttons, and a message: 'You are currently not logged in. You must have an account.'
- MyFaces JSF Portlet:** A 'Greetings!' section with three numbered icons: 1. Demo (star), 2. Download (green arrow), 3. Accessorize (globe).
- JSP Portlet:** A section titled 'This is a basic installation of JBoss Portal 2.6.3-GA. You may log in at any time, using the Login link at the top-right of this page, with the following credentials: user/user or admin/admin. If you are in need of guidance with regards to navigating, configuring, or operating the portal, please view our online documentation.'
- WSRPWindow:** A section with the 'bea' logo and text: 'Welcome to WebLogic Portal WSRP Demo. Click here to goto next page.'
- HelloWorld JSF Portlet:** A form with 'First Name:' and 'Last Name:' input fields and a 'New' button.
- PHP Poll Portlet:** A poll titled 'Which Portal do you prefer?' with two radio button options: 'JBoss Portal' and 'The portal of JBoss', and a 'Vote' button with a 'View Results' link below.
- Programme TV:** A section titled 'I'm a CMS file ! With a JBosslogo under' featuring the JBoss logo and a list of TV programs for 'Mardi 22 Janvier 2008':
 - 1. La Caueidienne (17:35 - 40 mn.)
 - 2. Rex (17:10 - Serie de 45 mn.)
 - 3. Des chiffres et des lettres (17:35 - 25 mn.)
 - 4. L'île des âmes perdues (16:25 - Film de 105 mn.)
 - 5. L'Europe, les nids dans l'eau
- Bart Simpson Phrases:** A section featuring a cartoon of Bart Simpson and a quote: 'Hey, it's a teddy bear...Ew! Gross! It's probably diseased or something...Here Maggie.' It includes an advertisement for 'Die Simpsons - Der Film' and a link to 'View More Bart Simpson Phrases'.
- Struts MailReader Demo:** A section titled 'MailReader Demonstration Application (Struts 1.2.4)' with a sub-section for 'MailReader Demonstration Application Options'.

Portals and SOA

- Split your services
 - ✓ Maintenance
 - ✓ Lifecycle
 - ✓ Technology independent
- Split your web applications
 - ✓ Maintenance
 - ✓ Lifecycle
 - ✓ Technology independent
- Don't split the UI !
 - ✓ The user doesn't like to have to deal with multiple applications
- A portal is a window on the services



JBoss Portal in general

JBoss Portal State of the Union

- Focus on core portal functionality
 - ✓ Aggregation
 - ✓ Provides a standards-based environment for serving a portal's web interface and publishing/managing portal applications and content
 - ✓ Consistent look and feel
 - ✓ Performance and scalability
 - ✓ Centralized security
 - ✓ Single Sign On across elements of the portal
 - ✓ Identity manager
 - ✓ Presentation framework (Portal vs Portlet level)

Standards based

- JSR-168: Portlet Specification
 - ✓ Final release: Oct 27th, 2003
- JSR-286: Portlet Specification 2.0
 - ✓ Proposed Final Draft: Dec 13th, 2007
 - ✓ Red Hat Middleware LLC represented by:
 - ✓ Julien Viet (JBoss Portal project leader)
- JSR-301: Portlet Bridge Specification for JavaServer™ Faces
 - ✓ Early Draft Review 2: Sep 10th, 2007
 - ✓ Red Hat Middleware LLC represented by:
 - ✓ Julien Viet (JBoss Portal project leader)
 - ✓ Wesley Hales (JBoss Portal)
 - ✓ Stan Silvert (JSF expert)

Standards based

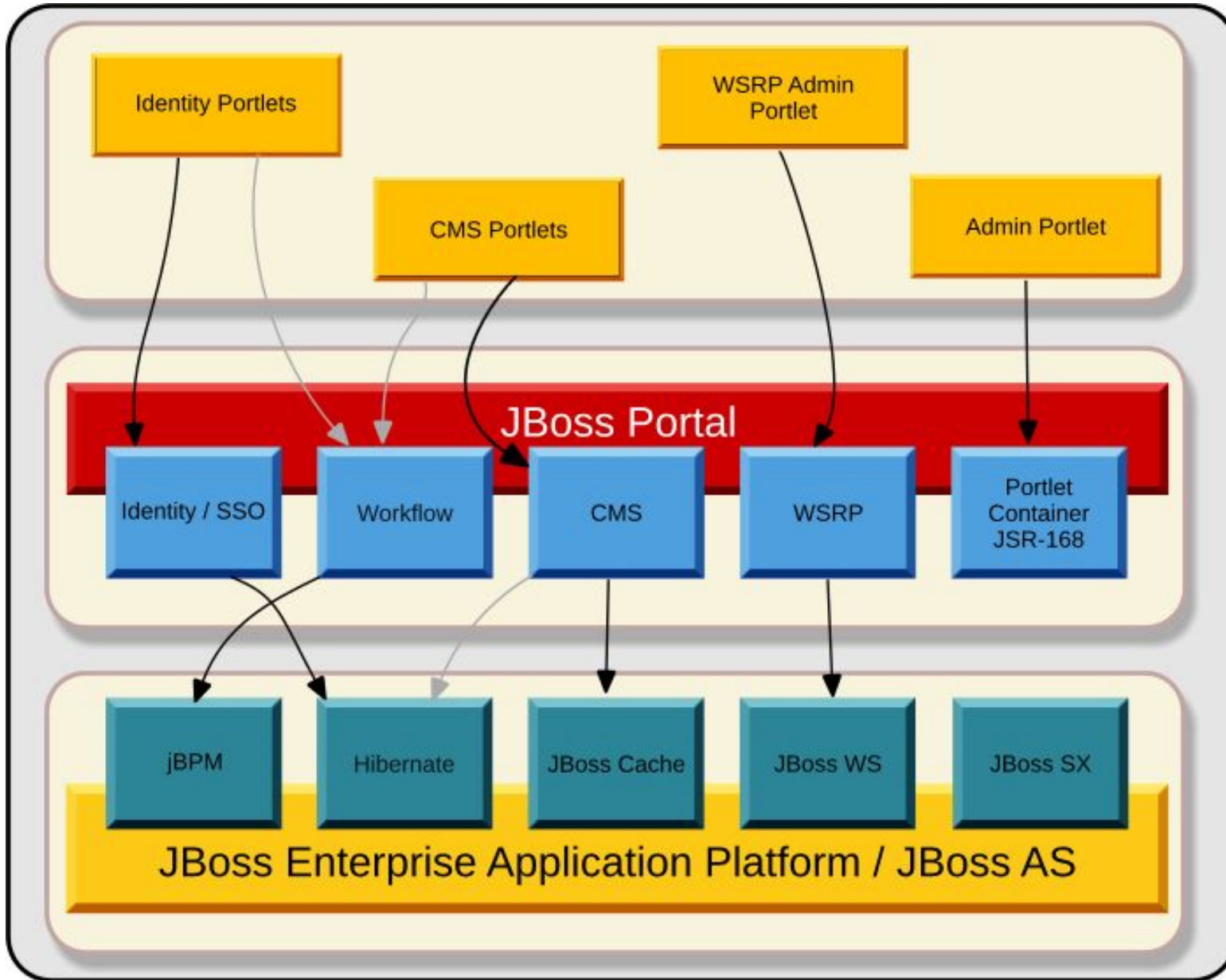
- JSR-170: Content Repository for Java technology API
- OASIS WSRP v1.0

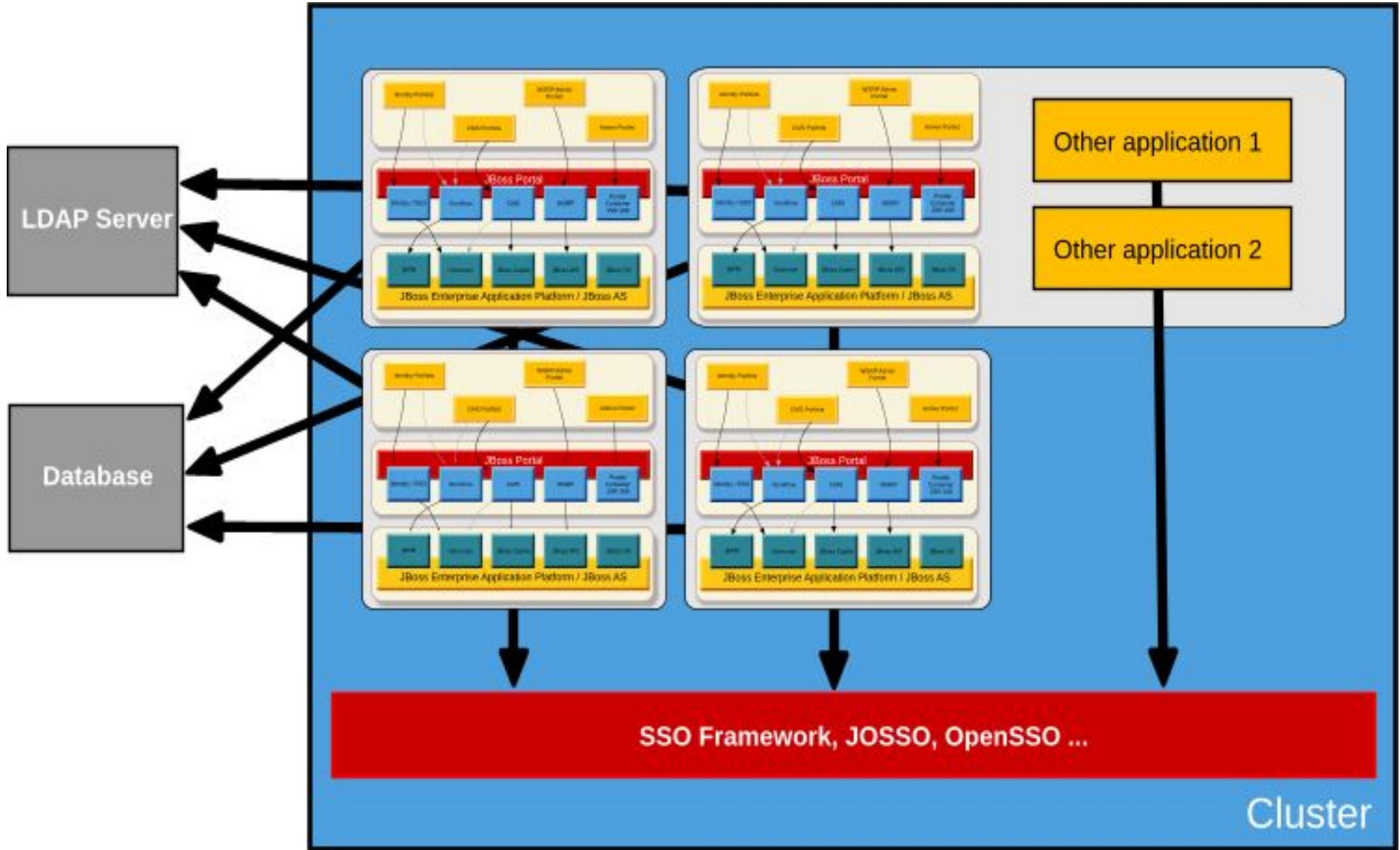
Leverages other JEMS components

- JBoss SX
 - ✓ JAAS based domain security subsystem
- JBoss Cache
 - ✓ Performance
 - ✓ Fault tolerance
- Hibernate
 - ✓ database independence
- jBPM
 - ✓ Business process
 - ✓ Better flexibility
- JBoss Web Services
 - ✓ WSRP

Modularized

- Deploy/Undeploy components
- Light bare portal
- Soft dependency between elements
- Identity portlets does not necessarily require the workflow service
 - ✓ Depends on your needs





Identity Server integration

- A set of interfaces to integrate with any identity server
 - ✓ Red Hat Directory Server
 - ✓ OpenLDAP
 - ✓ OpenDS
 - ✓ Sun Directory Server
 - ✓ Microsoft Active Directory
 - ✓ ...

Single Sign On integration

- Several applications, a unique login challenge to the user
- A set of interfaces to integrate with any SSO framework
 - ✓ CAS
 - ✓ JOSSO
 - ✓ Open SSO
 - ✓ ...



Around JBoss Portal

Community

- A large base of users
 - ✓ Active forums
 - ✓ Multiple environments, OS, database...
 - ✓ User input and early feedback
 - ✓ Helps us anticipate needs before final releases
- 10,000 downloads a month

Strong points given by our users

- Modularity
- Seamless integration
- Reduced costs
- Scalable architecture
- Professional support quality

Related projects

- JBoss Wiki
 - ✓ Wiki portlet
- JBoss Forums
 - ✓ Forums portlet
- More portlets on portletswap.com (being revamped)
- Increasing number of portlets available globally

JBoss Portal as a product

- Open Source with LGPL license
- Backed by up to 24x7 “Support from the Source”
- JBoss certified partners (HP, Cap Gemini, Alfresco, Atos Origin, Unisys...)

Installation Overview

- JBossAS/Portal Bundle
 - ✓ Zero Installation Required
 - ✓ Start Server
 - ✓ Go to <http://localhost:8080/portal>
- Standalone JBoss Service Archive (SAR)
 - ✓ jboss-portal.sar – Core framework code
 - ✓ portal-core.war – stores layouts/themes
 - ✓ portal-server.war – portal server root context
 - ✓ ...
 - ✓ Hibernate DDL/DML executed on initial startup
 - ✓ HSQL embedded (Not for production)

Future

- Server agnosticism
 - ✓ Run everywhere
- Federated search
- WSRP 2.0
- New presentation framework
- Improved content framework
- <-- Your needs



JBoss Portlet Bridge

Introducing JBoss Portlet Bridge

- Grown from the JBoss RichFaces project
- A JSR-301: Portlet Bridge implementation
 - ✓ Link between:
 - ✓ JSR-168: Portlet 1.0
 - ✓ JSR-252: JavaServer Faces 1.2
- Deploy in a portal environment
 - ✓ JSF applications
 - ✓ JSF Rich Faces applications
 - ✓ JSF Seam application
 - ✓ JSF Rich Faces + JSF Seam applications

JBoss Portlet Bridge

- A separate project:
 - ✓ <http://labs.jboss.com/portletbridge>
- A joint effort between multiple teams
 - ✓ RichFaces (Alex Smirnov)
 - ✓ Seam (Pete Muir)
 - ✓ JBoss Portal (Wesley Hales)

Status

- JBoss Portlet Bridge 1.0 Beta2 is out !
- Supports
 - ✓ RichFaces 3.2.0
 - ✓ JBoss Seam 2.0.2.CR1
 - ✓ JBoss Portal 2.6.4.GA
- JSR-301 specification based

Specifications dreamland

- Supposedly works on any JSR168/JSR286 compliant portlet container
 - ✓ Opensource
 - ✓ ... or not
- Supposedly works with any JSF implementation
 - ✓ MyFaces
 - ✓ Sun RI
- Upfront testing on JBoss Portal and embedded JSF implementation
- Community based support and testing for other combinations



JBoss Portlet Bridge Demo



Portlet 2.0

Portlet Container

- A service deployed in a runtime such as an application server
- Manages a portlet component
 - ✓ Implements a component model
 - ✓ Defined by the portlet specification (JCP)
- Interacts with a portal in a various manner
 - ✓ Portlet description
 - ✓ Portlet state management
 - ✓ Portlet runtime interactions
 - ✓ Defined by the Web Service for Remote Portlet specification (Oasis)

Public render parameters

- A very powerful feature
 - ✓ Easy to use
 - ✓ Flexible
 - ✓ Allows the caching of fragments
- A portlet exposes its render parameters
 - ✓ The developer declares the public parameters in the deployment descriptor of the portlet
 - ✓ The scope of sharing is determined by the portal : page, site, ...

Public render parameters

- Use cases
 - ✓ Several portlets on the same page share the same zipcode, and are able to display informations related to the geographic location
 - ✓ Weather
 - ✓ Map
 - ✓ Etc...
 - ✓ Contextualization of a portlet by the portal
 - ✓ Pages could have properties bound to portlets public render parameters

Public render parameters use case

```
<portlet-app>
  <portlet>
    <portlet-name>GoogleMap</portlet-name>
    ...
    <supported-public-render-parameter>zipcode</supported-public-render-parameter>
    ...
  </portlet>
  <public-render-parameter>
    <identifier>zipcode</identifier>
    <qname xmlns:g='urn:google'>g:zipcode</qname>
  </public-render-parameter>
</portlet-app>
```

Public render parameters use case

```
public void render(RenderRequest req, RenderResponse resp)
{
    String zipcode = req.getParameter("zipcode");
    render(zipcode, resp);
}

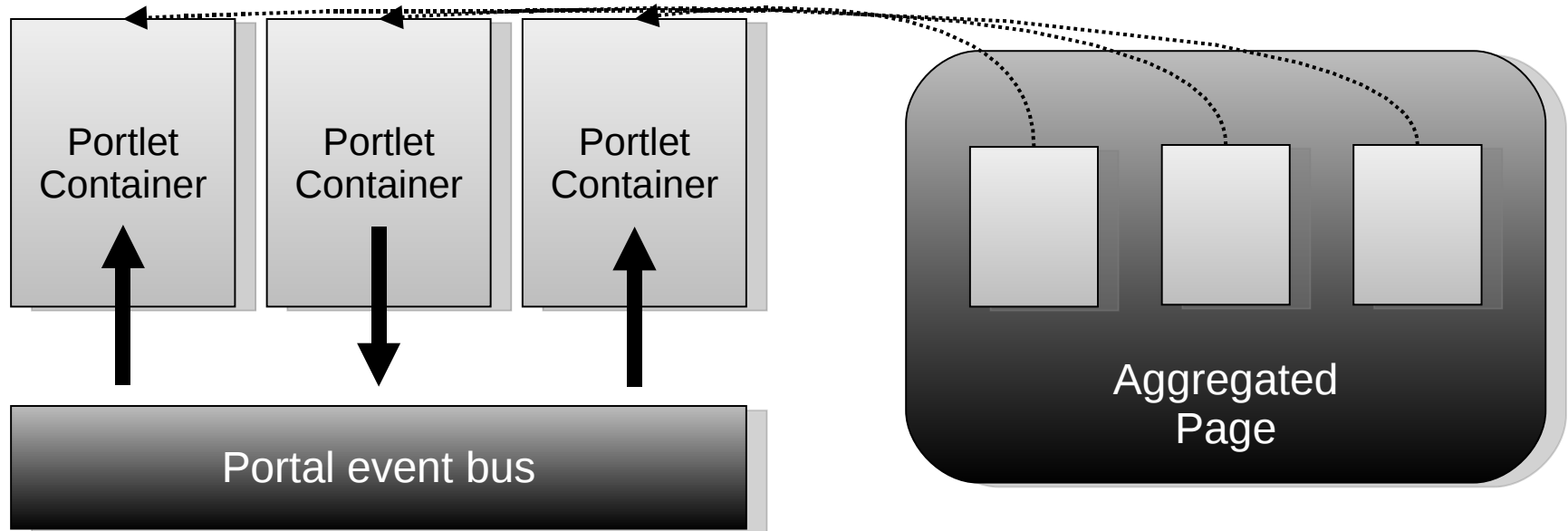
public void processAction(ActionRequest req,
ActionResponse resp) {
    String newZip = req.getParameter("zipcode");
    resp.setRenderParameter("zipcode", newZip);
}
```

Portlet coordination via events

- Really coordination events
 - ✓ not business events (use JMS instead)
 - ✓ not reliable, e.g no guarantee of delivery
- Declarative
 - ✓ What I can process
 - ✓ What I can publish
- Event routing is mediated by the portal
- Used in different life-cycle phases
 - ✓ Action phase can publish events
 - ✓ A new event phase can process/publish events



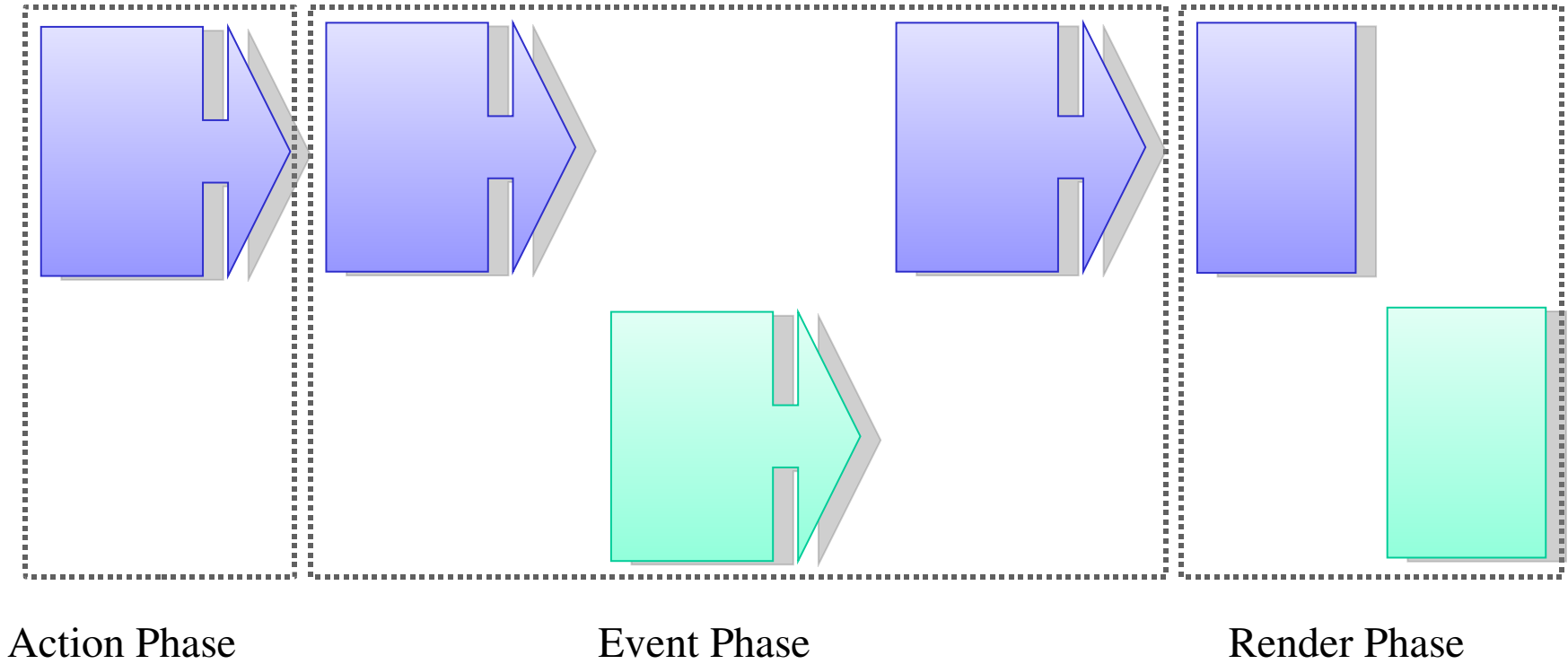
Portlet event routing is orchestrated by the portal



```
<portlet-app>
  <event-definition>
    <name>product-selected</name>
    <value-type>com.myshopping.Item</value-type>
  </event-definition>
</portlet-app>
```




Portlet event routing is orchestrated by the portal



Portlet publishing event

```
public void processAction(ActionRequest req,  
ActionResponse resp) {  
  
    Item item = getClickedItem(req);  
    resp.setEvent("product_selected", item);  
  
}
```

```
<portlet>  
    <supported-publishing-event>  
        <name>product_selected</name>  
    </supported-publishing-event>  
</portlet>
```

Portlet processing event

```
public void processEvent(EventRequest req, EventResponse
resp) {

    Event event = req.getEvent();
    Item item = (Item)event.getPayload();
    ShoppingCart cart = getShoppingCart(req);
    cart.addItem(item);

}
```

```
<portlet>
  <supported-processing-event>
    <name>product_selected</name>
  </supported-processing-event>
</portlet>
```

Portlet events

- Use cases
 - ✓ Decoupling of different applications that need to communicate
 - ✓ You are already using an application that can generate events, and you want to integrate it with that application
 - ✓ Communication between the portal and the portlet
 - ✓ Login/Logout
 - ✓ Activities
- Antipatterns
 - ✓ Event usage for updating render parameters
 - ✓ Use public render parameters instead
 - ✓ Do not abuse
 - ✓ A carefully designed application can avoid to use events
 - ✓ Event cascading cycling forever
 - ✓ Not a messaging system

Other features that matter

- Resource serving
 - ✓ The portlet can serve directly content
- Full request/response header access
 - ✓ Page headers allow to inject headers in the page
 - ✓ Read/write HTTP headers
 - ✓ Read/write cookies
- Portlet filters
 - ✓ Just like servlet filters
- Caching improvements
 - ✓ Resource caching
 - ✓ Cache re-validation

Other features that matter

- Window ID available in the portlet request
 - ✓ Can be used to perform per portlet window caching
- More powerful request dispatching to servlets
 - ✓ Targeted for bridge development
 - ✓ Extended to all phases
 - ✓ Allows scoping of session to application or portlet
- Next possible modes
 - ✓ The portlet can specify the next possible modes available

JBoss Portlet Container 2.0

- JBoss implementation of the Portlet 2.0 spec
 - LGPL license
 - Candidate 2 released
 - Final version targetted for end of March
- Provides also a simple out of the box portal to quickly build portal pages
 - You only get the portlet container
 - Defines a flexible JSP taglib to build pages

```
<html><body><portal:page>
  <portal:portlet name="MyPortlet" applicationName="in_my_war_file">
    <portal:portlettitle/>
    <portal:portletmarkup/>
  </portal:portlet/>
</portal:page></body></html>
```



JBoss Portlet Container 2 Demo



Questions ?

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<http://www.jboss.org/jbossportal>

<http://blog.jboss-portal.org>