

## JBoss Portal

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## JBoss Portal

- [JSR-168](#) compliant Portal
- Open Source (LGPL)
- Leverages JBoss Enterprise Middleware System (JEMS) components
- Active contributors
  - ✓ JBoss employees
  - ✓ Partners (Novell, Cignex, AEM, Alfresco, etc...)
  - ✓ Community members
- Component repository:  
[www.portletswap.com](http://www.portletswap.com)
- Backed by 24x7 "Support From the Source"

2

## Feature Summary

- J2EE-based Portal Framework
  - ✓ Java Portlet portability via JSR-168
  - ✓ Java Server Faces (MyFaces), SEAM, and Spring MVC support
- Enterprise Grade Infrastructure
  - ✓ Supports most popular databases (Hibernate)
  - ✓ Highly Scalable
  - ✓ Secure
    - Single Sign On
    - LDAP Authentication
  - ✓ Runs on JBossAS
- JCR-enabled CMS (JSR-170)
  - ✓ Uses [Apache Jackrabbit](#) as its JCR implementation

3

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4

## JBoss Portal & JEMS

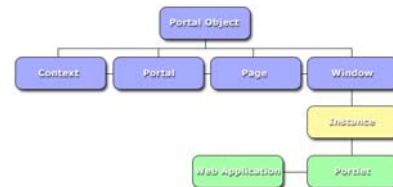
- Leveraging JEMS - Reduces "Frankenstein Effect"
  - ✓ Data Access Layer - Hibernate
    - Supports most popular databases
      - ✓ Oracle, MySQL, MS SQL-Server, DB2, etc...
  - ✓ Content Cache Layer - JBossCache
    - JBossCache stores shared portlet windows/fragments
    - Time based user caching per JSR-168 Guidelines



5

## Dynamicity

- Dynamicity:
  - ✓ Ability to create/edit/destroy portal objects at runtime
  - ✓ Based on the portal object tree philosophy
- Portal objects are all considered branches to the root portal context
- Within a deployment descriptor, all branches (and leaves) can be specified. (\*-object.xml)



6

## IPC

- Interportlet Communication:
  - ✓ Absent from Portlet 1.0
  - ✓ Forcing vendors to have proprietary APIs
- JBoss Portal leverages the Portal Object Tree to facilitate IPC
  - ✓ Allows for communication with another window or linking to other pages

## Pluggable Themes/Layouts

- Hot-Deployment
- Division of responsibilities
- JSR-168 CSS Support
- Fine-grained theme assignment
- Custom layouts/regions/strategies

## CMS

- Really a WCM (Web Content Manager)
- JCR-enabled ([JSR-170](#))... Java Content Repository Specification
  - ✓ Standardized API for content repositories
- Uses [Apache Jackrabbit](#) as its JCR implementation
- Roy Russo and Julien Viet, members of JCR 2.0 ([JSR-283](#))
- Added Hibernate and Clustering support

## Community - Portletswap

- <http://www.portletswap.com>
- Categorized and qualified catalog of portlets and themes
- PortletSwap for 2.6:
  - ✓ PortletSwap subprojects
    - Infrastructure for community portlet projects, providing forums, wiki, SVN, html pages

## 2.4 Documentation Enhancements

- Tutorials
- JSR 168 Primer
- Refactored User/References-Guides
- CMS & Cluster Configuration
- Quick Start Guides
  - ✓ Users
  - ✓ Developers

## 2.4 Migration App

- Allows for migrating from 2.2 to 2.4
  - ✓ Copies/Updates DB Schema changes
- Permanent module found under /migration in CVS



## Eclipse Portlet Plugin (WIP)

- A Portlet skeleton app wizard that generates:
  - ✓ A Portlet class
  - ✓ Standard and JBoss Portal descriptors
  - ✓ An ant build script
- Future:
  - ✓ Enhance documentation
  - ✓ Allow for other portlet stub creation:
    - JSF Portlets
    - Seam Portlets
- More information:
  - ✓ Forums reachable from: <http://labs.jboss.com/portal/jbossportal/>
  - ✓ Flash demo: <http://docs.jboss.org/jbosside/demos/jbossportlet-plugin-demo/PortletPlugin.html>

13

## SEAM & JBoss Portal

- Full Support for SEAMPortlets
- SEAM Booking Application converted to Portlet
  - ✓ SEAM CVS (/examples/portal)
- Supported in current release of JBoss AS Installer

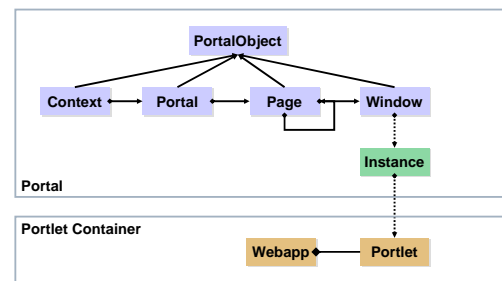
14

## JBoss Portal 2.4

- JBoss Portal 2.4 new features
  - ✓ Increased reliability and testing
    - Check online results <http://cruisecontrol.jboss.com/cc/buildresults/jboss-portal-2.4-testsuites>
  - ✓ WSRP implementation
  - ✓ Clustering support
    - Portlet session replication
    - Domain clustering
    - CMS clustering
  - ✓ Misc
    - More friendly URLs
- Status
  - ✓ Beta 1 is released get it !!!
  - ✓ Candidate releases later in June
  - ✓ Final in June

15

## JBoss Portal architecture overview



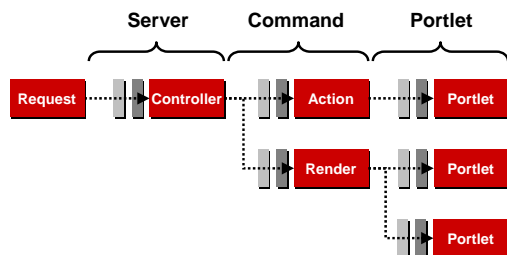
16

## JBoss Portal architecture overview

- Layered architecture
- JBoss Portal uses aspects to implement the portal
  - ✓ Great modularity
  - ✓ Easy integration
  - ✓ Separation of concerns
  - ✓ Three nested pipelines

17

## JBoss Portal architecture overview



18

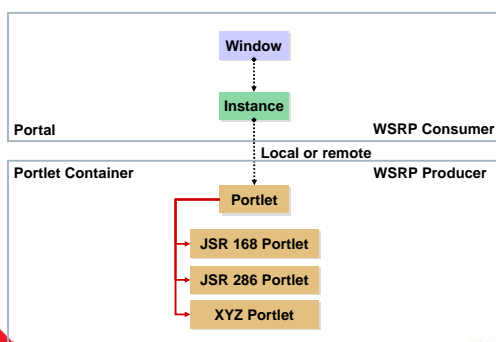
## JBoss Portal architecture overview

- Server
  - ✓ Per client request
  - ✓ Examples : determine locale, content type
- Command
  - ✓ Per command executed during a request
  - ✓ Examples : portal object security, navigation graph, node events
- Portlet
  - ✓ Per portlet invocation
  - ✓ Examples : implement the JSR 168 specification and more

## What is WSRP ?

- Web Services for Remote Portlets
- An OASIS specification
- Defines a standard for interactive, user-facing web services that plug and play with portal
  - ✓ WSRP Producer gives access to a set of portlets
  - ✓ WSRP Consumer uses the producer to expose the portlet in its environment
  - ✓ A protocol that uses web services
    - Provide portlet lookup
    - Handle various interactions that maps to the portlet specification
    - Makes it independent of the portlet technology

## What is WSRP ?



## Benefits

- WSRP clearly defines the contract between producers and consumers
- Provides integration between different middleware stacks
- Easier development on the consumer side:
  - ✓ All WSRP content is presentation-oriented
  - ✓ Access is done in a standard way
- Easier management on the producer side:
  - ✓ Retention of content control
  - ✓ Subscription management
- Built on existing standards: SOAP, WSDL...

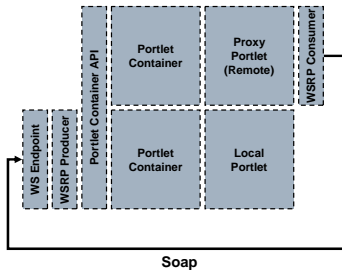
## WSRP interfaces overview

- Service Description interface (required):
  - ✓ acquiring the Producer's and portlets metadata
- Markup interface (required):
  - ✓ retrieving portlets markup and processing user interaction
  - ✓ Consumer assistance to producer operations
- Registration interface (optional):
  - ✓ establishing, updating and destroying a registration
- Portlet Management interface (optional):
  - ✓ getting Portlet metadata
  - ✓ cloning Portlets for further customization
  - ✓ interacting with portlet properties

## WSRP Implementation

- The traditional way to do it
  - ✓ The producer is a web service that interacts with the API offered by the portlet container for operations such as
    - Runtime invocation
    - Portlet Management
  - ✓ The so called *proxy portlet* is the consumer
    - the proxy portlet implements the WSRP consumer and bridges it with the actual portal
    - Issues
      - ✓ Management is placed on the portlet and not the portal as it should be
      - ✓ WSRP optimizations are difficult to implement

## WSRP Implementation



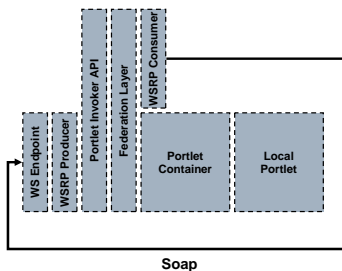
25

## WSRP Implementation

- Our implementation aims to
  - ✓ Provide better manageability and reusability
  - ✓ Be the de facto standard for open source WSRP
    - Performant
    - Reliable
    - Configurable
  - ✓ Separate concerns
    - Deal and encapsulate with WSRP concerns
      - ✓ e.g handle `initCookie` operation transparently for instance

26

## WSRP Implementation



27

## WSRP Implementation

- What it buys us ?
  - ✓ One unified stack
  - ✓ Manageable
  - ✓ Flexible
  - ✓ Routing capabilities
  - ✓ A true middleware approach : WSRP is just a transport layer
- What it buys you ?
  - ✓ Consumer reuse for portal builders
  - ✓ Producer reuse for integration of legacy applications

28

## WSRP Configuration

- Configuration
  - ✓ jboss-portal.sar contains the portal-wsrp.sar service
    - SOAP endpoints
    - Producer stack
    - Remote producer deployer (i.e consumer implementation)
- Consumer configuration
  - ✓ Consumer are deployed using a deployment descriptor dropped in `/deploy`

29

## Consumer configuration

- The producer is uniquely referenced as 'someid'
- The producer metadata are considered valid for 2 minutes
- End points can also be configured with the WSDL url

```
<deployments>
<deployment>
<wsrp-producer>
<producer-id>someid</producer-id>
<expiration-cache>120</expiration-cache>
<endpoint-config>
<service-description-url>.</service-description-url>
<markup-url>.</markup-url>
<registration-url>.</registration-url>
<portlet-management-url>.</portlet-management-url>
</endpoint-config>
</wsrp-producer>
</deployment>
</deployments>
```

30

## Producer configuration

- jboss-portal.sar/portal-wsrp.sar is the service that adds WSRP remoteness
- Portlet exposed needs to be advertised in jboss-portlet.xml

```
<portlet-app>
  <portlet>
    <portlet-name>MyPortlet</portlet-name>
    <remotable>true</remotable>
  </portlet>
</portlet-app>
```

31



## WSRP Roadmap

- WSRP for JBoss Portal 2.6
  - ✓ WSRP
    - Portlet management interface
    - Registration interface
  - ✓ Bonus features
    - Bypass SOAP layer and use JBoss http invoker + JBoss Serialization
      - ✓ Same semantic : remote portlet invocation
      - ✓ Up to 10 time faster !!!
    - Transparent security propagation
- WSRP for JBoss Portal 3.0
  - ✓ WSRP 2.0

32



## Roadmap

- JBoss Portal 2.6 scheduled for Q4 2006
- Very soon, confirmed features
  - ✓ WSRP Portlet management and consumer registration
  - ✓ Improve usability
  - ✓ Dashboard
  - ✓ CMS workflow integration
  - ✓ JBoss ON integration

33



## Roadmap

- JBoss Portal 3.x in 2007
- Lot of new exciting stuff, confirmed features
  - App server agnosticity based on JBoss Embedded technologies
    - ✓ Microcontainer
    - ✓ JBossWS
    - ✓ EJB3
  - AJAX Aggregation
  - Portlet 2.0 implementation
  - WSRP 2.0 implementation

34



## Conclusion

- JBoss Portal 2.4 is ready
  - ✓ Unified portlet container architecture
  - ✓ Clustering support
  - ✓ Give us feedback
- Portleswap umbrella is growing
  - ✓ De facto portlet market place
    - Get visibility for your portlets !!!
  - ✓ Professional hosting
- 2.6 and 3.x are in the pipe
  - ✓ 2.6 : Q4 2006
  - ✓ 3.x : 2007

35



## Resources

- JBoss Portal HomePage:  
<http://labs.jboss.com/portal/jbossportal/index.html>
- Live Demo: <http://portal.demo.jboss.com>
- Documentation:  
<http://labs.jboss.com/portal/jbossportal/docs/index.html>
- Downloads:  
<http://labs.jboss.com/portal/jbossportal/download/index.html>
- Portlet Community: <http://www.portletswap.com>
- Knowledge Base:  
<http://jboss.org/wiki/Wiki.jsp?page=JBossPortal>
- Forums (reachable from our homepage).
  - ✓ User
  - ✓ Developer
  - ✓ WSRP
  - ✓ Eclipse Portlet Plugin

36



## Some other cool stuff

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- Don't miss the other portal sessions
  - ✓ WSRP : today 2:20pm
  - ✓ Portlet 2.0 preview : tomorrow 9am

37



## Q&A

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Q&A

38

