



# OpenPortal Portal Server

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Staff Engineer

Product Development Engineering

Sun Java System Portal Server

UNLOCK  
OPPORTUNITY

What will you open?

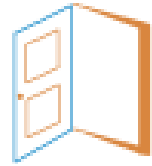


**SUN TECH DAYS 2006-2007**

A Worldwide Developer Conference

# Agenda

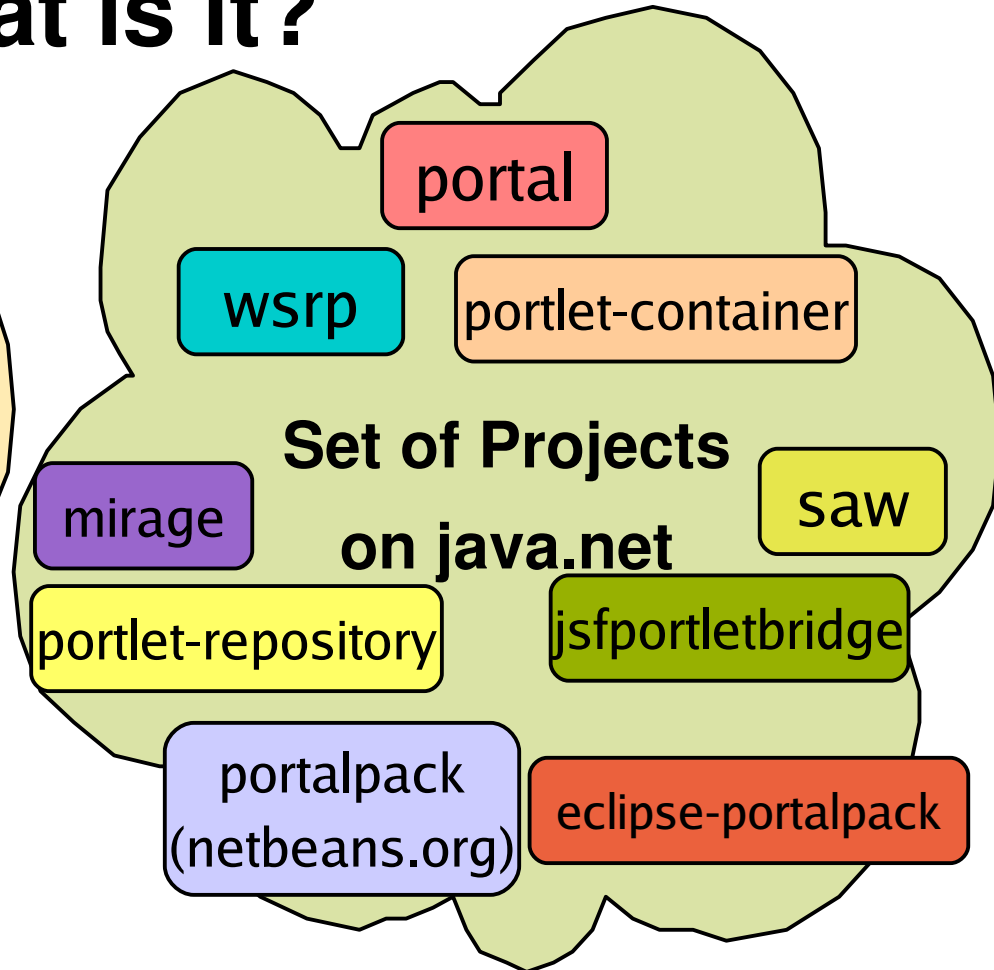
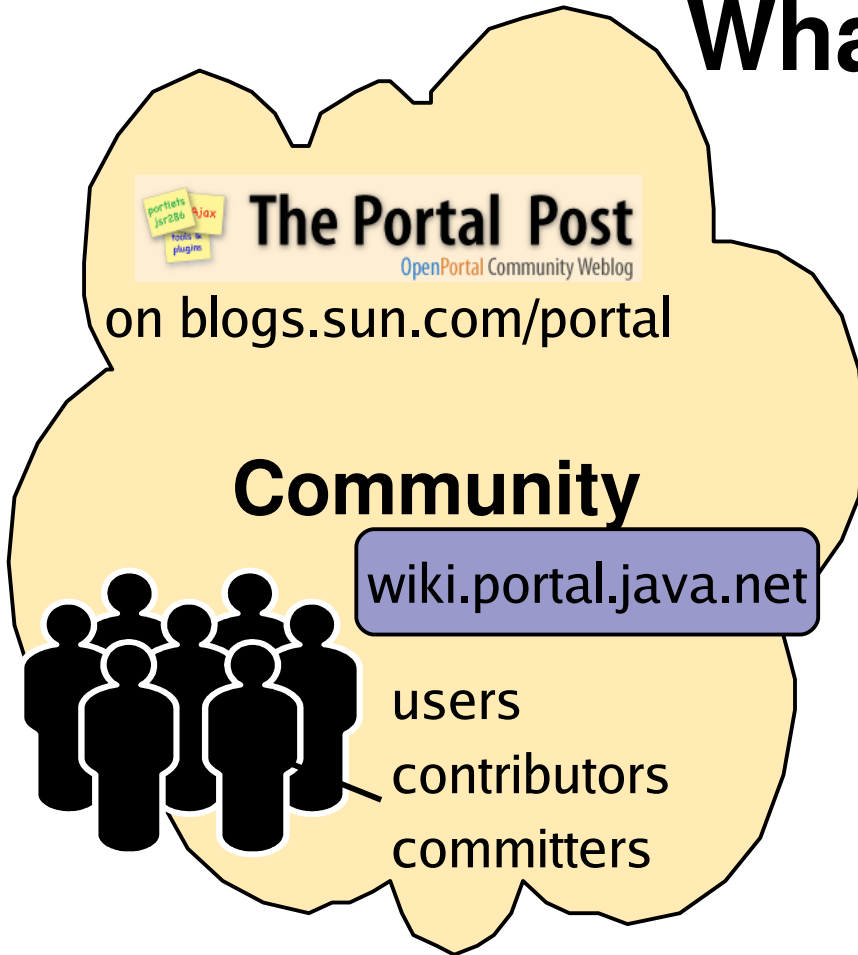
- OpenPortal Project
- Portal Server Architecture
- How it works?
- Features
- Tools
- Call to Action
- Resources and Q/A



# OpenPortal

Open Source. Open Standards. Open Portal Server.

## What is it?



# Sun Java System Portal Server 7.2

- Sun-branded distribution built from OpenPortal source code
- No “secret sauce”
- Enterprise-Class  
MultiUser, Internationalization, Accessibility, Scalability, HA, Reliability, Performance, Security, Customizability, Usability, Manageability and Serviceability, Support, Documentation

# PS 7.2 Editions

## Community Edition

Preconfigured, Zipped

- Includes AS 9.1, AM 7.1, DS 6.0, JDK 1.6
- Download: 680 MB
- Solaris 10/SPARC,x86  
RHEL 4  
Windows 2003, XP, Vista
- Evaluation/Development

## Enterprise Edition

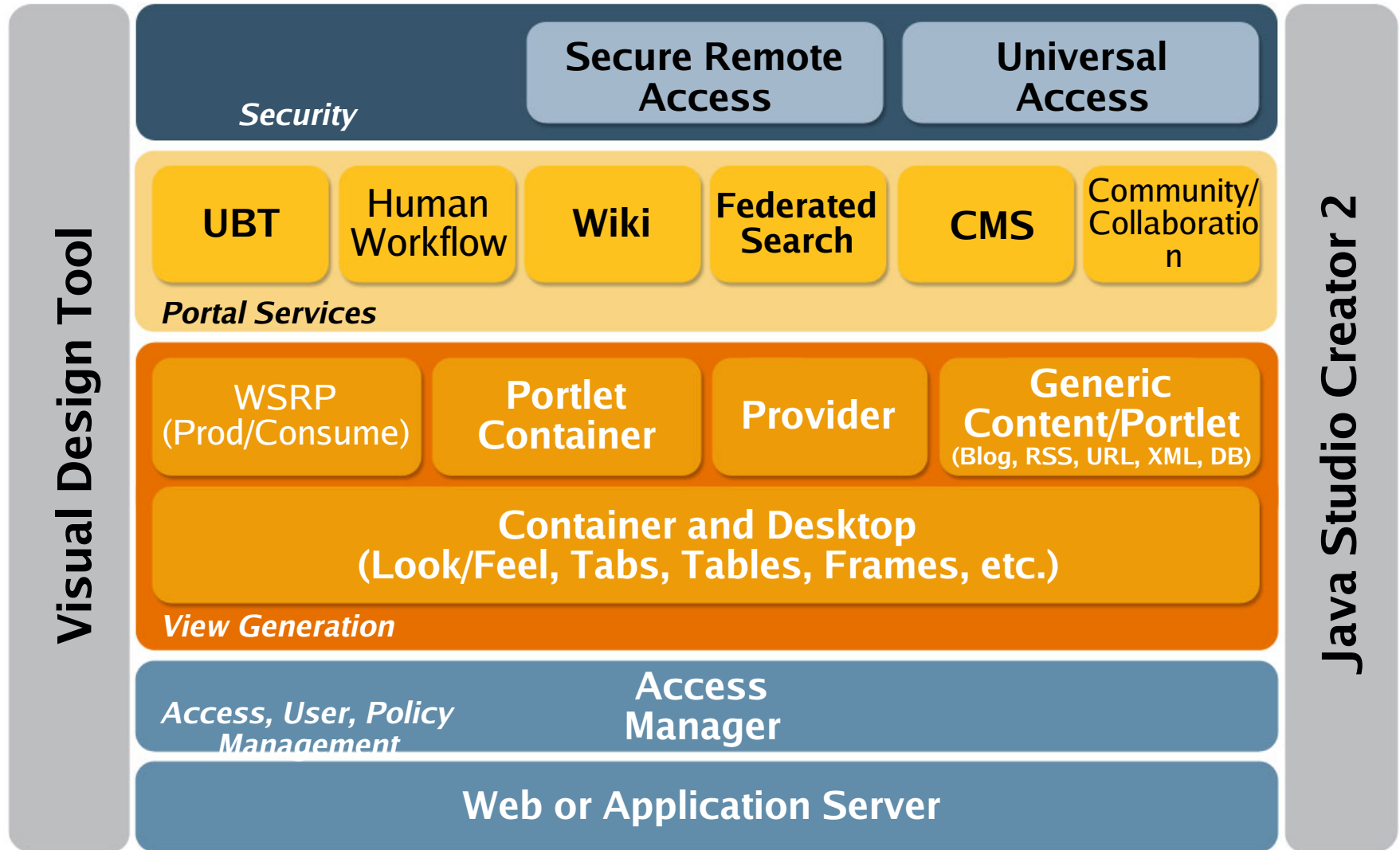
Native packages, Patchable

- AM, DS, web container unbundled
- Download: 230 MB
- AS 9.1 or Glassfish
- JDK 1.5 or 1.6
- Solaris 9, 10/SPARC,x86  
RHEL 4

# Agenda

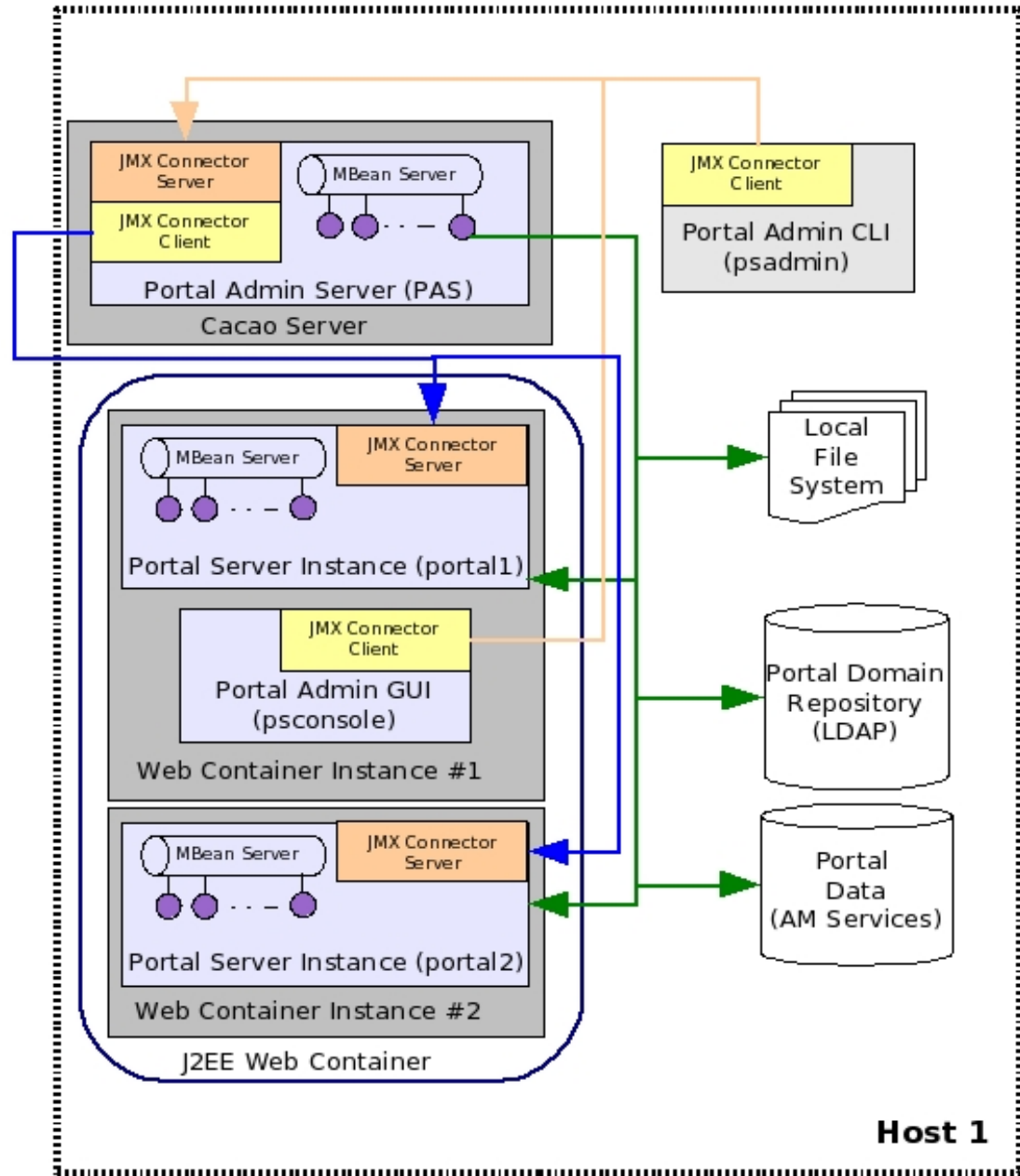
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# Architecture Overview



# Administration Framework

- Cacao or CAC
  - > Common Agent Container
  - > Part of S10
  - > JMX/JDMK based
- Distributed
- Secured
- Pluggable PDR
- Monitoring
- Delegation

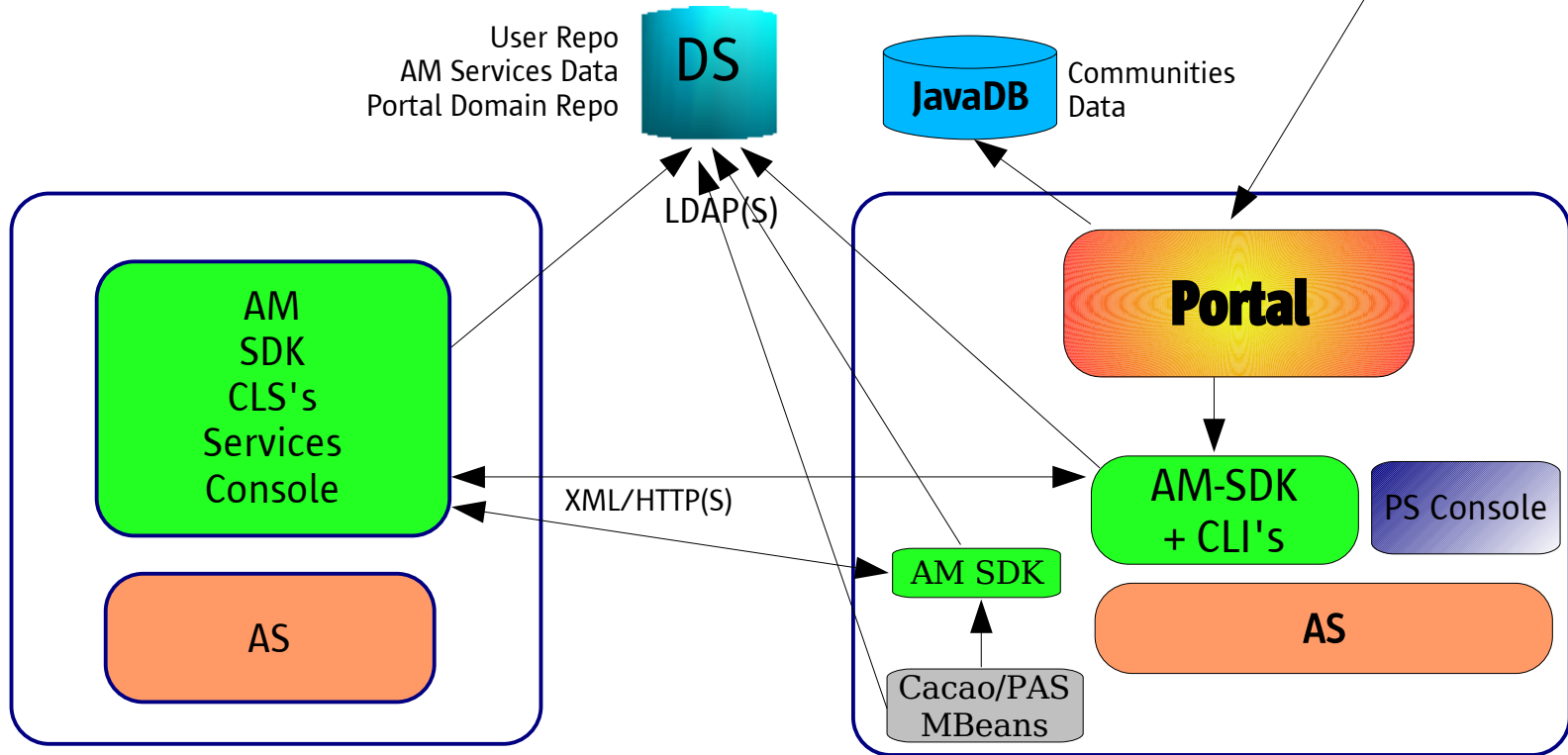
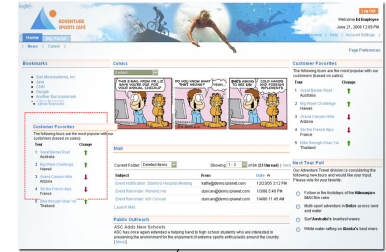




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# Components in play



# Single Sign-On

- User accesses /portal/dt
- DesktopServlet checks if user is authenticated
  - > If !authenticated
    - > If anonymous desktop enabled
      - Show anonymous desktop
    - > Else
      - redirect to AM login page
      - After successful login, user is redirected back to portal
  - > Else show portal desktop

```
try {  
    SSOTokenManager manager = SSOTokenManager.getInstance();  
    SSOToken token = manager.createSSOToken(request);  
} catch(SSOException ssoe) { //user not authenticated}
```

# Get user's membership

- Get this information for the user
  - > User's organization hierarchy
  - > User's roles (static and dynamic)
  - > User's attributes like locale etc.

```
AMStoreConnection amsc = new AMStoreConnection(ssotoken);
```

```
AMUser user = amsc.getUser(ssotoken.getPrincipal());
```

```
String orgDN = user.getOrganizationDN();
```

```
AMOrganization org = amsc.getOrganization(orgDN);
```

```
//walk up the org hierarchy to get all AMOrganization objects
```

```
Set roles = user.getRoleDNs();
```

```
Set froles = user.getFilteredRoleDNs();
```

```
//get all role and filtered role objects
```

```
AMRole role = amsc.getRole(roleDN);
```

# Get all DP fragments

- Get the Desktop Service attribute which stores Display Profile (DP) for all nodes

## For user:

```
Map attrs = user.getServiceAttributes("SunPortalmyPortalDesktopService");
```

```
Set values = attrs.get("sunPortalmyPortalDesktopDpDocumentUser");
```

## For roles and organizations:

```
AMTemplate template = role.getTemplate(
```

```
    "SunPortalmyPortalDesktopService", AMTemplate.DYNAMIC_TEMPLATE);
```

```
Set values = template.getAttribute("sunPortalDesktopDpDocument");
```

# Merge the DP fragments

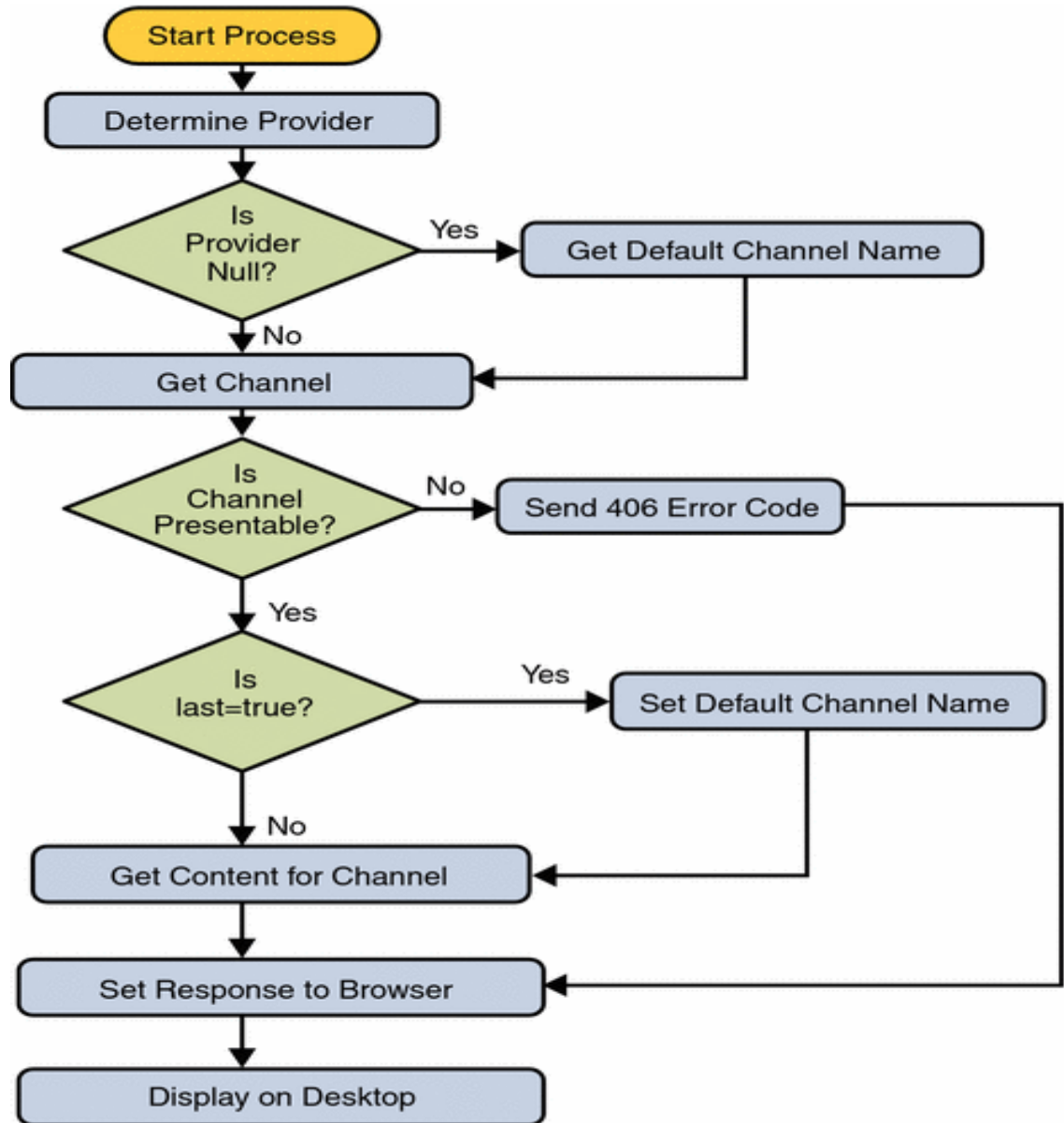
- DP fragment is an xml
- DP-API is used to merge/manipulate DP xml
  - > `com.sun.portal.desktop.dp`

```
<Container name="FrontPage" provider="JSPTabContainerProvider" merge="replace">
  <Properties>
    <String name="startTab" value="FrontTable"/>
    <String name="contentChannel" value="JSPContentContainer"/>
  </Properties>
  <Available>
    <Reference value="FrontTable"/>
  </Available>
  <Selected>
    <Reference value="FrontTable"/>
  </Selected>
  <Channels/>
</Container>
```

# Desktop Servlet Content Action

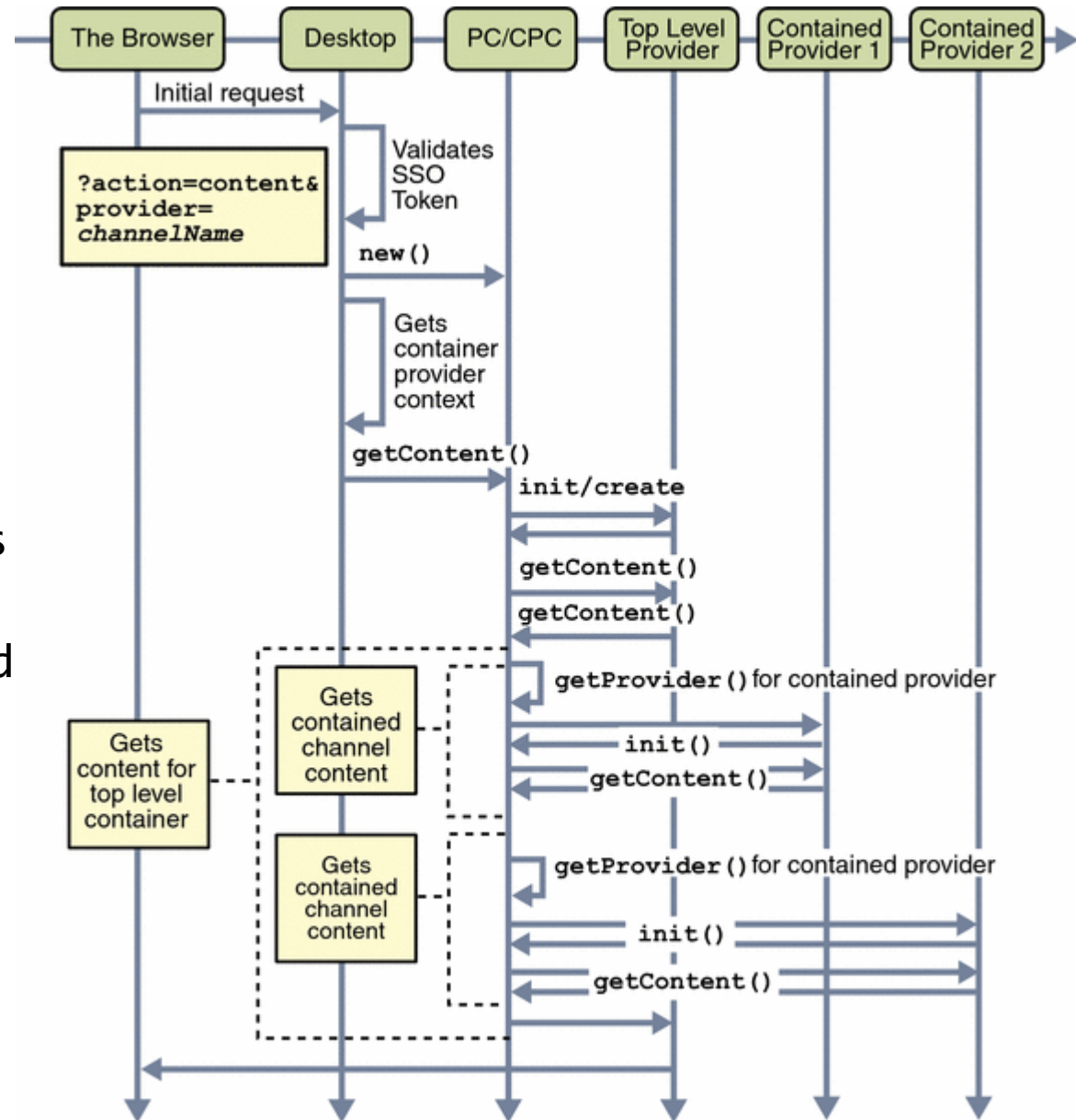
- Determines the provider
- Determine if the provider can be presented
- If the provider parameter is absent, use last value

DesktopServletURL?action=content&provider=ChannelName[&last=true]



# Sequence

- Containers are customizable
- Aggregate all portlets
- Use Provider API (PAPI)
- Various OOTB Containers (customizable)
- Portlet preferences stored as DP channel





# Summarizing

- Overly Simplified but you get the idea
- Look at the source
  - > portal/desktop/src/com/sun/portal/
  - > Some Interesting Packages
    - > com.sun.portal.desktop
    - > com.sun.portal.desktop.dp
    - > com.sun.portal.providers
    - > com.sun.portal.providers.containers
- Attach debugger using NetBeans
  - > Portal Webapp – Set debug to true in GF
  - > Mbeans – Start Cacao in debug mode (port 8000)
    - > /usr/lib/cacao/bin/cacaoadm debug

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# Content Aggregation

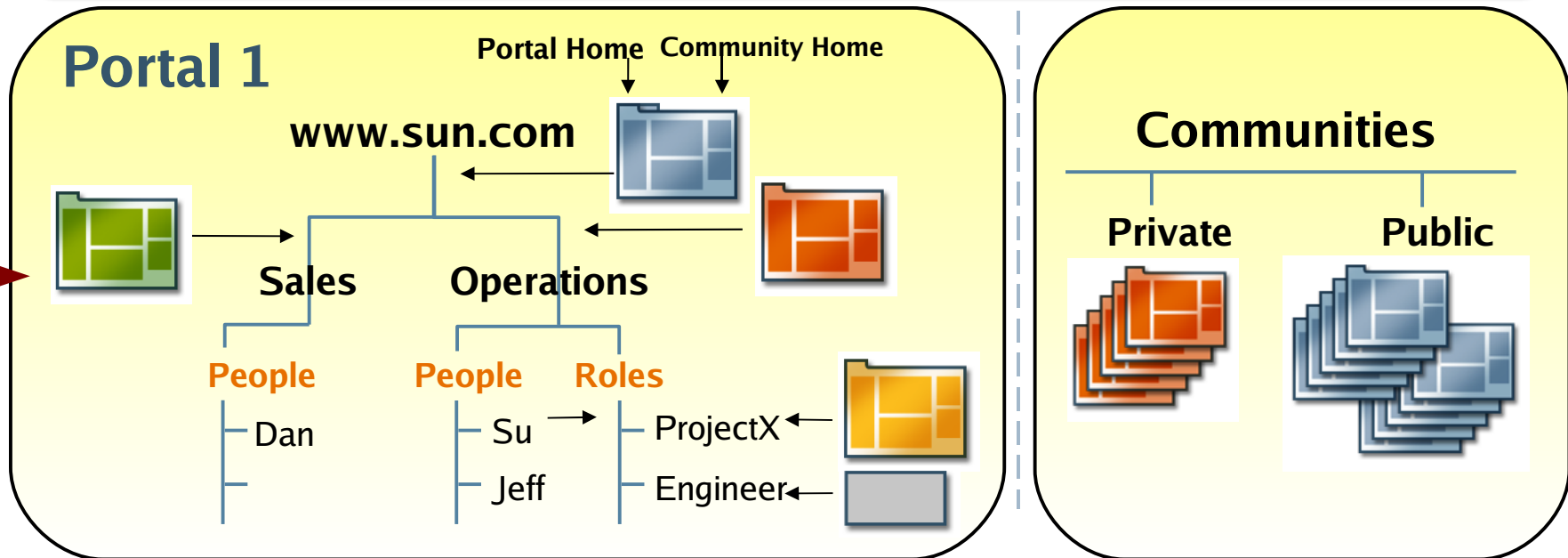
## Enterprise Portal Pages

Formally define a Portal Page or Portlet and deploy to:

- Organizations
- Sub-Organizations
- Realms
- Roles

## Community Portal Pages

Allow anyone to create a community to facilitate the adhoc productivity requirements



# Identity Based Content Delivery (IBCD)

This is Bob



Bob Sees all of these pages.

Built by Formal Portal Administrators



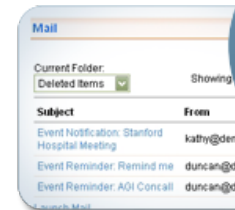
From Corp

Built by Team Members and Anonymous Area Experts



ProjectX Community

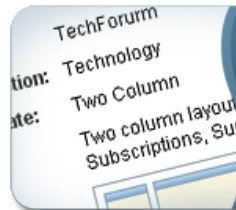
Added By Bob



MyWeather



From Engineering



Tech Forum



MyWeb Conf



Community Home



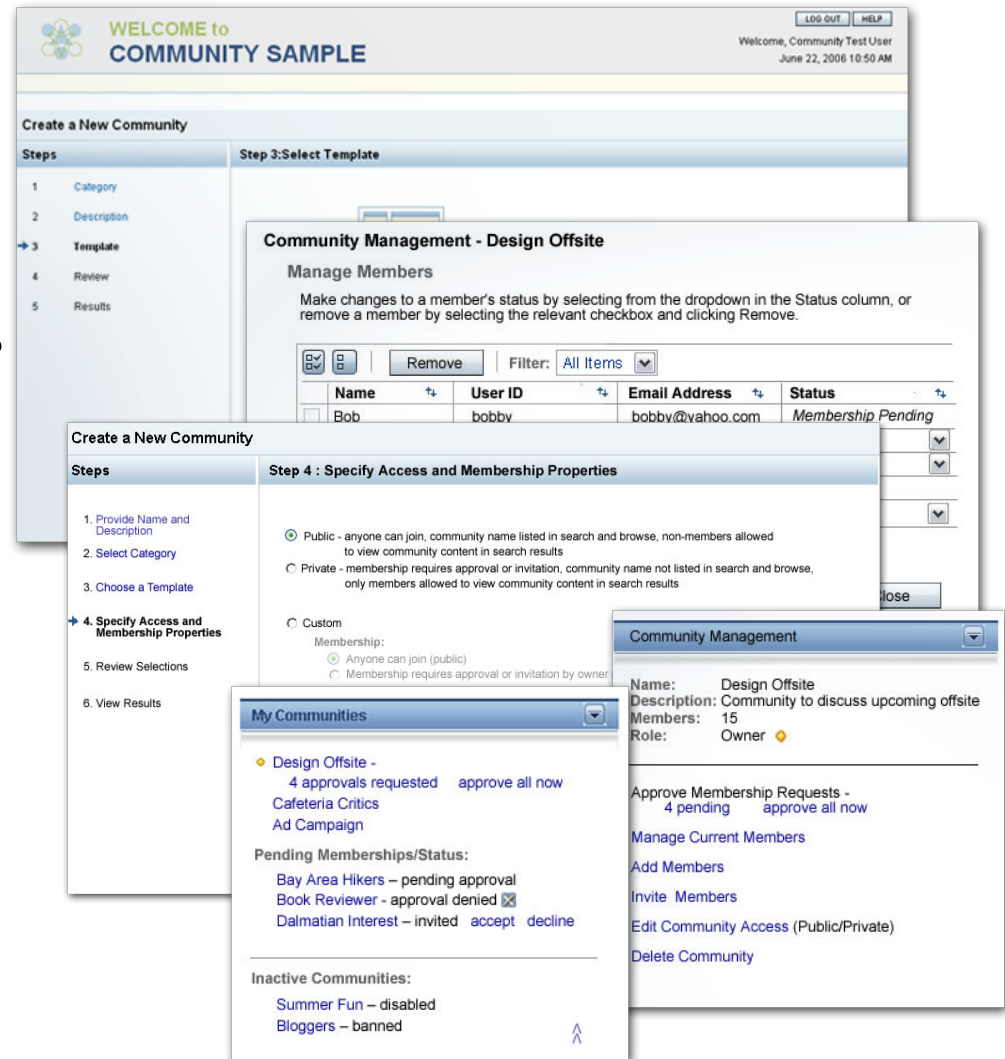
Company Hockey Team



Bookmarks / Charts

# Communities Framework

- Users can:
  - > Create Community pages
  - > Add services, data to community
  - > Control access permissions
  - > Search Communities
  - > Join Communities
- Collaboration
  - > File Sharing
  - > Threaded Discussions
  - > Wiki
  - > Surveys/Polls
  - > Team Event Tasks

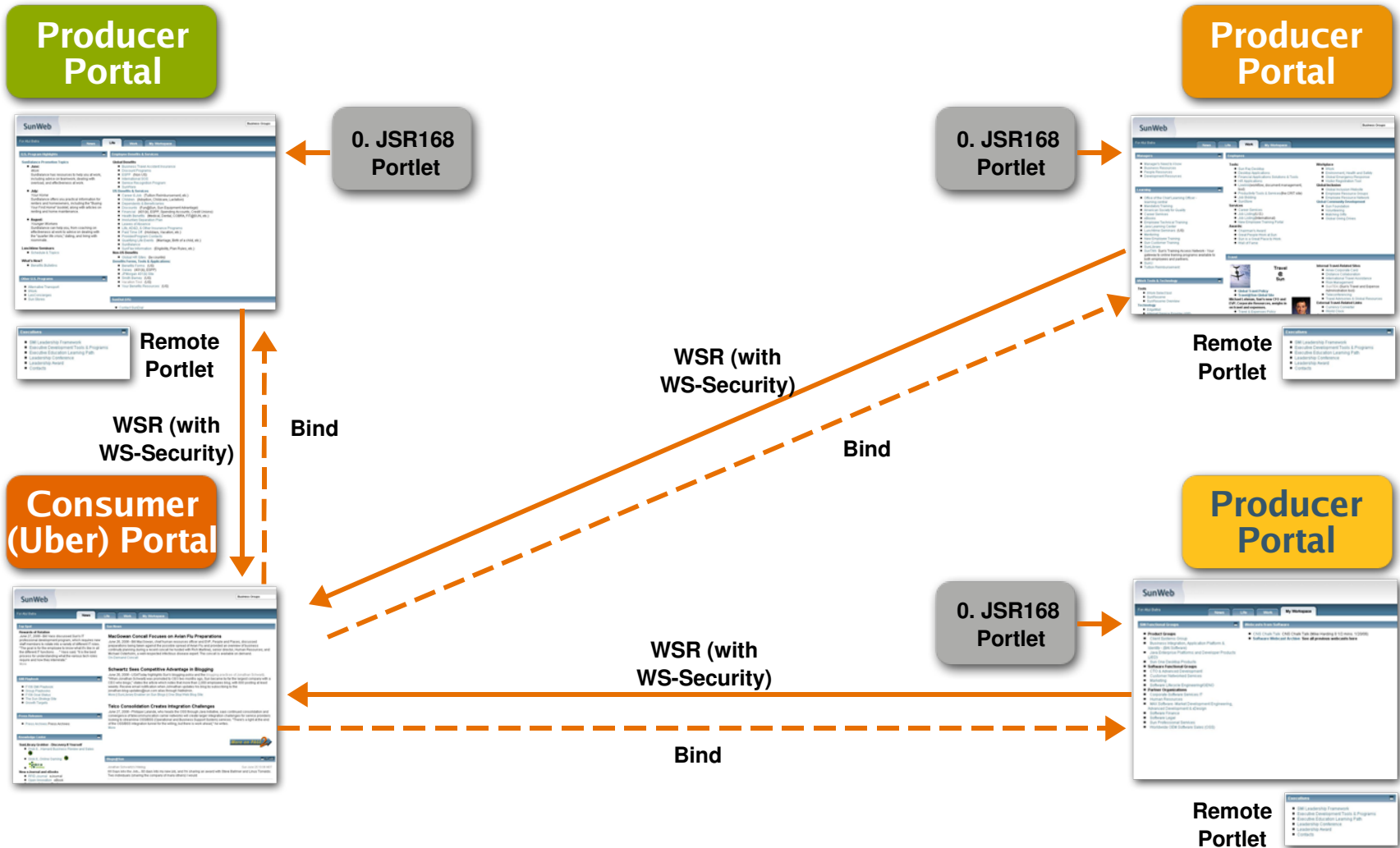


The screenshots show the following components of the Communities Framework:

- WELCOME to COMMUNITY SAMPLE**: The main header with user information (Welcome, Community Test User) and date/time (June 22, 2006 10:50 AM).
- Create a New Community**: A multi-step wizard.
  - Step 3: Select Template**: Shows a table for managing members.
 

Name	User ID	Email Address	Status
Bob	bobby	bobby@yahoo.com	Membership Pending
  - Step 4: Specify Access and Membership Properties**: Shows options for community visibility (Public, Private, Custom) and membership rules (Anyone can join, requires approval).
- Community Management - Design Offsite**: A management interface for a specific community.
  - Manage Members**: Text explaining how to change member status or remove members.
  - Community Management** sidebar:
    - Name: Design Offsite
    - Description: Community to discuss upcoming offsite
    - Members: 15
    - Role: Owner
    - Approve Membership Requests - 4 pending
    - Manage Current Members
    - Add Members
    - Invite Members
    - Edit Community Access (Public/Private)
    - Delete Community
- My Communities**: A list of communities for the user.
  - Design Offsite - 4 approvals requested
  - Cafeteria Critics
  - Ad Campaign
  - Pending Memberships/Status:
    - Bay Area Hikers - pending approval
    - Book Reviewer - approval denied
    - Dalmatian Interest - invited
  - Inactive Communities:
    - Summer Fun - disabled
    - Bloggers - banned

# WSRP Web Services for Remote Portlets



# New Features

- Portlet 2.0 (JSR-286) support
- Desktop Design Tool
- Delegated administration
- Google Gadgets integration
- Sharepoint integration
- CMS – Mirage
- Workflow - SAW
- Enhanced cluster configuration

# Google Gadgets Integration

- Gadget Portlet with integration into content selection
- >14K gadgets

The screenshot displays a web portal with several integrated Google Gadgets:

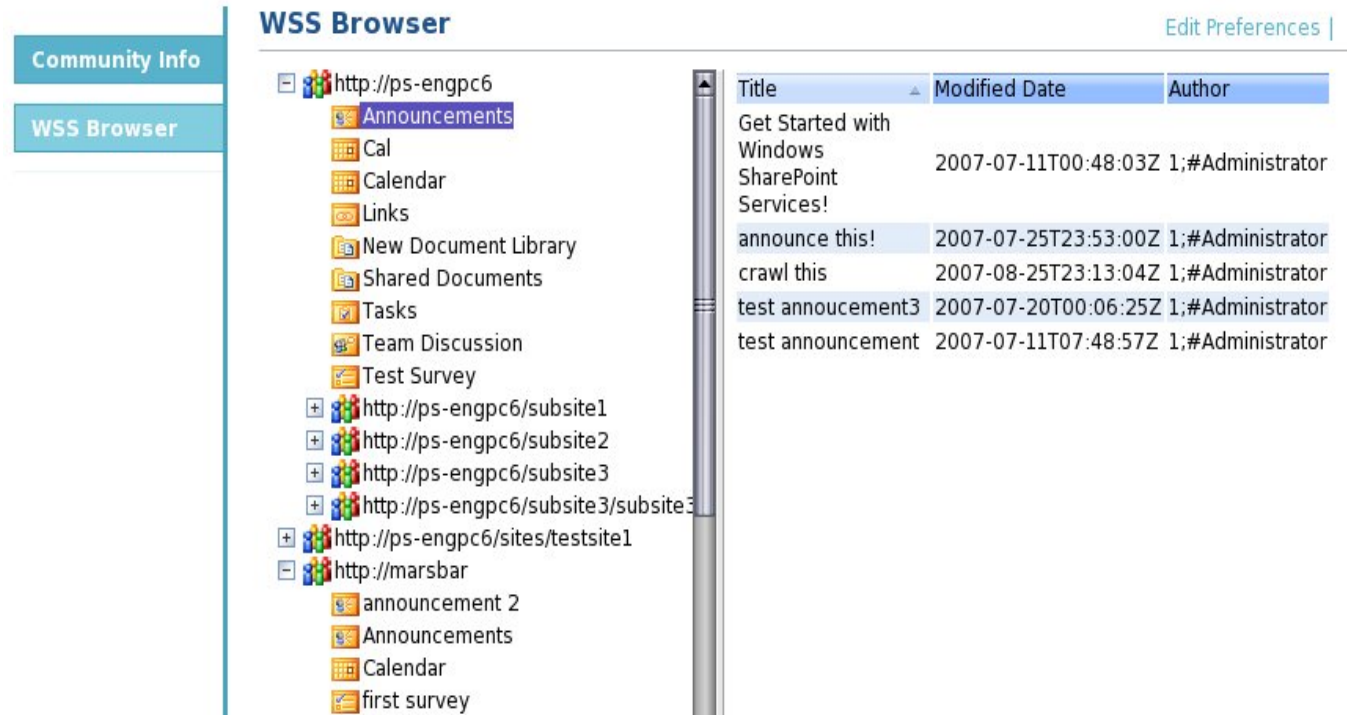
- Date & Time:** A clock showing the date as Wednesday, July 18.
- The Portal Post:** A news section titled "The Portal Post" containing links to "Browser Testing Nirvana", "Portal Server 7.2 Build B5 available", "OpenPortal", "Friday Humor: Mastering the Art of Saying Everything about Nothing", "Blog maintenance: Updated tag cloud", and "Secure Remote Access (SRA) in 7.1".
- Google Talk:** A section for Google Talk contacts, listing Roberto, Karine, and Davi as available contacts.
- Local Search:** A map showing the location of "Aling Elenas Restaurant" at 2026 Agnew Rd, Santa Clara, CA (408) 748-9110. Below the map is a list of nearby restaurants: (A) Aling Elenas Restaurant, (B) Fairway Restaurant, (C) Burrito Grande, and (D) Sandwich Construction.
- My Google Gadget:** A weather gadget for Burbank, CA (91505) showing a current temperature of 71°F and a forecast for the next three days (Today, Thursday, Friday).
- Mini Golf:** A gadget for "247 Mini Golf Single Player" with a "PLAY" button.



# Sharepoint Integration

- Search crawler for Sharepoint sites
- Community integration with Sharepoint sites

- Portlets
  - > Lists
  - > Meetings
  - > Alerts
  - > Sites
  - > Documents



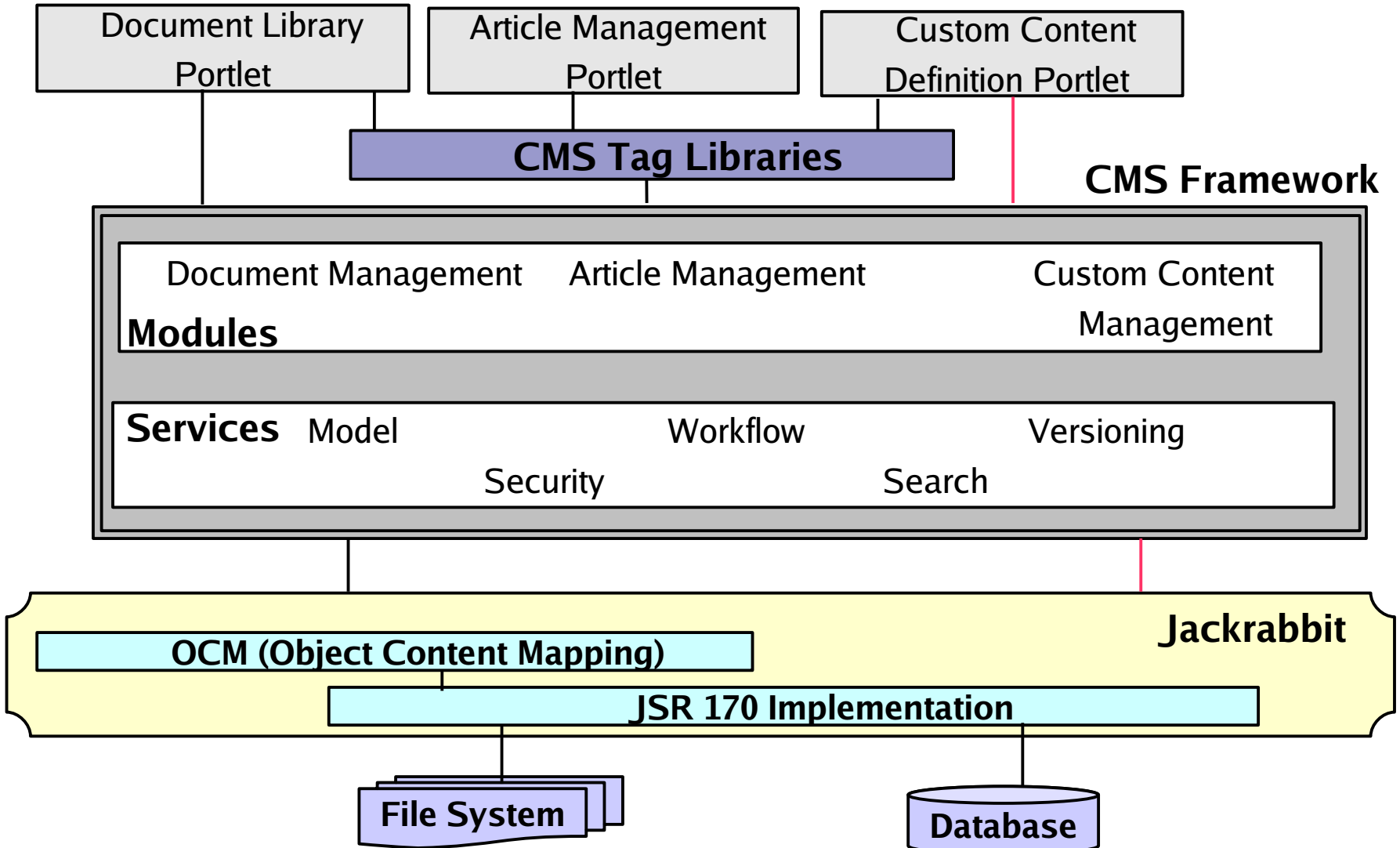
The screenshot shows a 'WSS Browser' interface. On the left, there are two tabs: 'Community Info' and 'WSS Browser'. The main area displays a tree view of a SharePoint site structure. The root site is 'http://ps-engpc6', which contains several portlets: Announcements, Cal, Calendar, Links, New Document Library, Shared Documents, Tasks, Team Discussion, and Test Survey. Below the root site, there are three subsites: 'http://ps-engpc6/subsite1', 'http://ps-engpc6/subsite2', and 'http://ps-engpc6/subsite3'. Under 'http://ps-engpc6/subsite3', there is a sub-subsite 'http://ps-engpc6/subsite3/subsite3'. Additionally, there is a site 'http://ps-engpc6/sites/testsite1' and a site 'http://marsbar' which contains portlets: announcement 2, Announcements, Calendar, and first survey.

On the right side of the interface, there are two links: 'Page Preferences' and 'Edit Preferences |'. Below these links is a table with the following data:

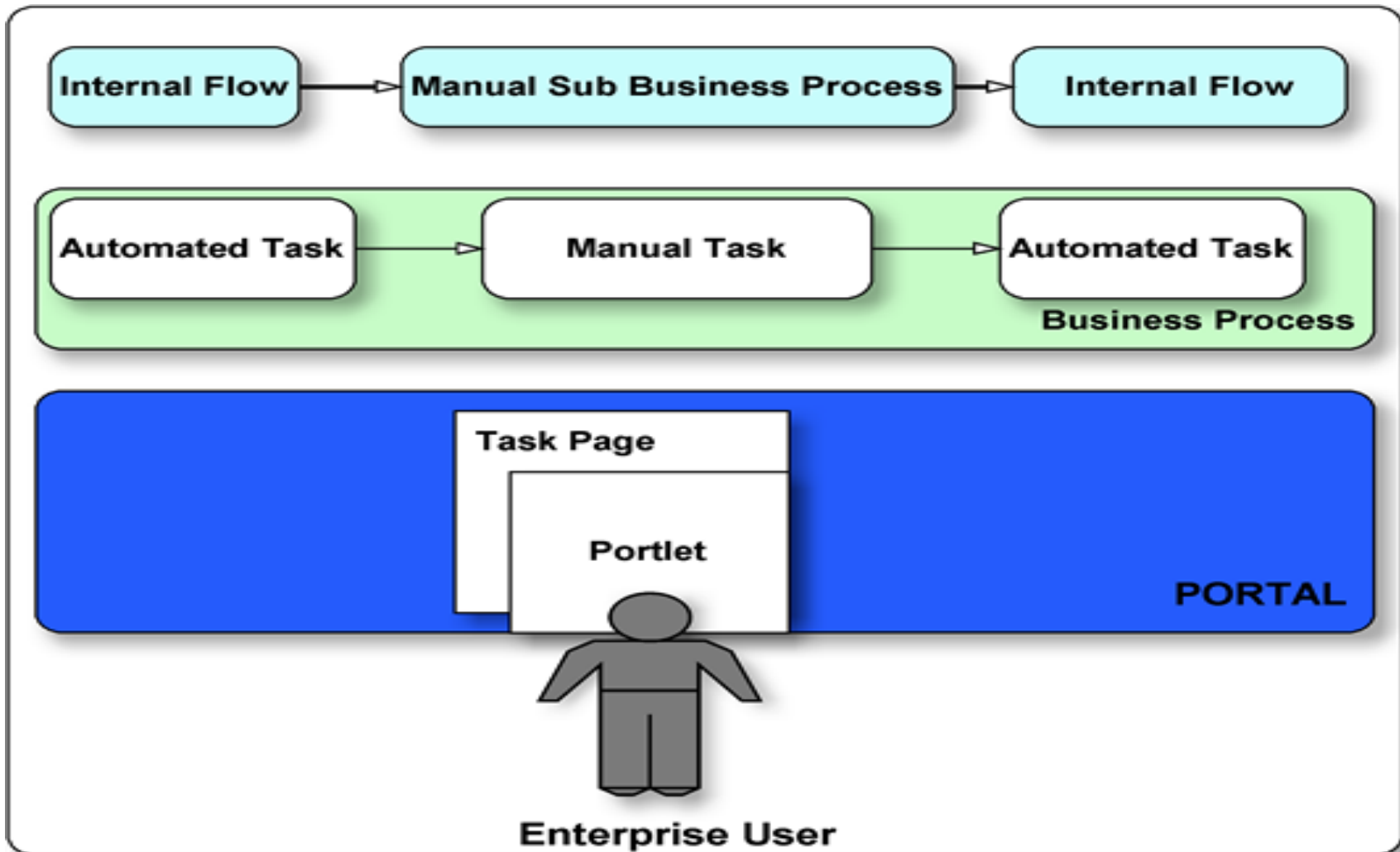
Title	Modified Date	Author
Get Started with Windows SharePoint Services!	2007-07-11T00:48:03Z	1;#Administrator
announce this!	2007-07-25T23:53:00Z	1;#Administrator
crawl this	2007-08-25T23:13:04Z	1;#Administrator
test announcement3	2007-07-20T00:06:25Z	1;#Administrator
test announcement	2007-07-11T07:48:57Z	1;#Administrator

# Mirage

JSR-170 Based CMS



# Simpler API for Workflow (SAW)



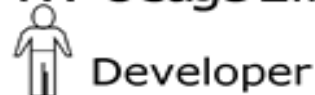
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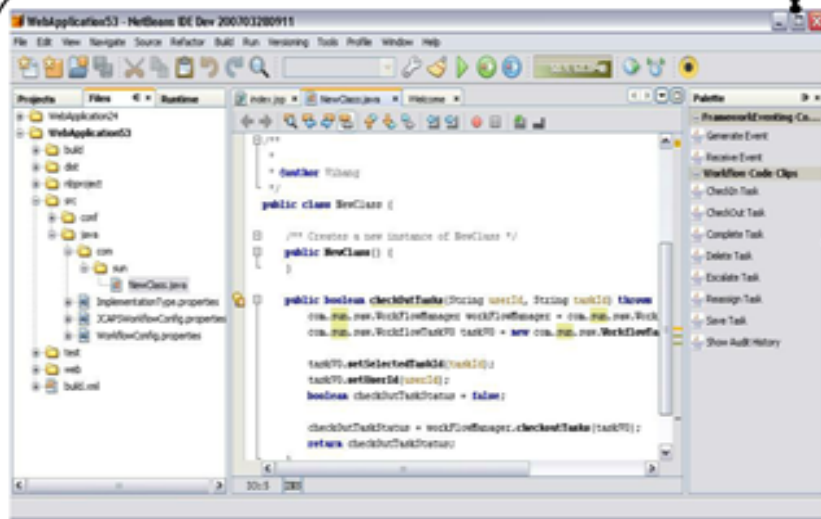
# NetBeans Plugins - PortalPack

- Support for New JSR 286 Public Draft
- Portlet Filter Support
- DnD support for Filter Mapping and Public Render Parameters
- Deployment support
  - > OpenPortal Portal Server
  - > OpenPortal Portlet Container 2.0 Beta
- DnD CMS tags
- Workflow portlet development
- [portalpack.netbeans.org](http://portalpack.netbeans.org)

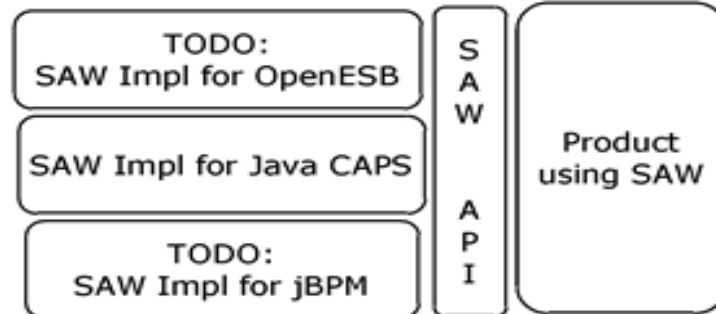
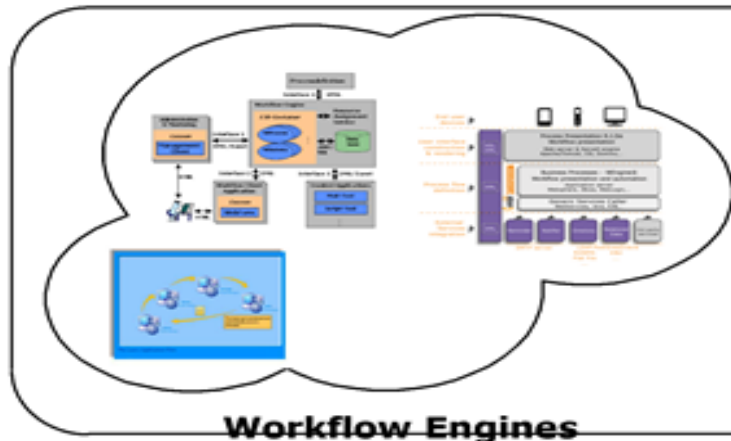
# End to End SAW Usage LifeCycle



## Workflow NetBeans plugin



## Application Deployed



# Desktop Design Tool

**Design Desktop Layout : myPortal** Back

Select DN:  Add DN's Delete OR Enter DN:  Go

Selected DN: o=EnterpriseSample,dc=red,dc=iplanet,dc=com >> [Help](#)

---

Tab Actions: Change Layout Change Theme Selected Theme: **Heavy Theme** >>

Home
Work
Communiti...

News
Tours
Career
Feeds
Search

Bookmarks < > ^ v x

NAME: Bookmarks  
PROVIDER: JSPProvider

Configure Channel  
Set Toolbar Properties  
Make Channel Visible

Yahoo Traffic ^ v x

NAME: YahooTraffic  
PROVIDER: JSPProvider

Configure Channel  
Set Toolbar Properties  
Make Channel Visible

What's Cooking?

NAME: TourRec  
PROVIDER: JS

Configure Chan  
Set Toolbar Prop  
Make Channel V

User Information < > ^ v x

NAME: UserInfo  
PROVIDER:  
UserInfoProvider

Configure Channel  
Set Toolbar Properties  
Make Channel 'Not Visible'

Flickr ^ v x

NAME: Flickr  
PROVIDER: JSPProvider

Configure Channel  
Set Toolbar Properties  
Make Channel Visible

**Channel Library:**

< Add To Desktop

- App
- Applications
- Bookmark
- Bookmark Portlet
- BookmarkRemotePortlet
- Bookmarks
- CommunitiesBrowseOrCreate
- CommunityCreateNew
- CommunityCreatePortlet
- CommunityMembershipPortlet
- CommunityPortlet
- DiscussionLite
- Discussions
- ExtraSearch
- FileSharing

-App

[Channel not defined at this DN, click Add to Desktop to do so]

**Title:** App Provider  
**Width:** Narrow (thin)  
**Provider:** App Provider

# ViewDesigner

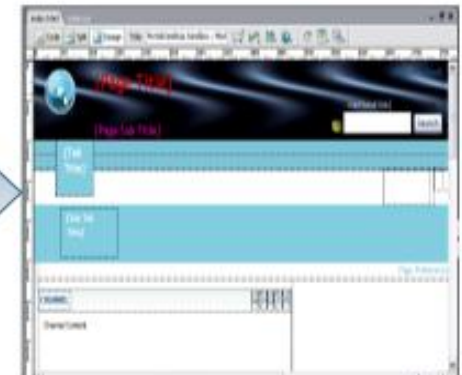
## USING VIEWDESIGNER



Initial Portal Page



Import Skin File



Modify index.html



Portal Page after new theme is applied



Upload new theme using PSConsole



Export Skin File



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# Participate!

- Try
  - > Checkout and Build for yourself
  - > Or Download and Install
- Play with features and tools
- Let us know what you don't like
- Blog what you like
- Contribute
  - New Features, Portlets, Usability fixes, Bugs fixes
- Deploy with confidence

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# Need more information?

- OpenPortal Project page  
[portal.dev.java.net](http://portal.dev.java.net)
- OpenPortal Documentation  
[wiki.portal.java.net](http://wiki.portal.java.net)
- Blogs  
[blogs.sun.com/portal](http://blogs.sun.com/portal)
- Forums (8,933 messages in 3,320 topics, 99,817 Views)  
[forum.java.sun.com/category.jspa?categoryID=111](http://forum.java.sun.com/category.jspa?categoryID=111)



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UNLOCK  
OPPORTUNITY

What will you open?



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A Worldwide Developer Conference