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November 11–15, 2007

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Enhancing Application User's Experience with Web 2.0 Capabilities

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Senior Principal Product Manager, Oracle WebCenter





The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

ORACLE FUSION MIDDLEWARE



Development Tools

Unified SOA Development Tool & Framework



User Interaction

Web 2.0 Portal, Rich Internet Apps, Mobile, Search, Desktop, Presence, VoIP



Enterprise Performance Management

Planning, Budgeting, Financial Management & Reporting, Scorecards



Business Intelligence

Data Integration, Query & Analysis, OLAP, Dashboards, Reports, Alerts, Real-Time



Content Management

Web Content, Documents, Digital Assets, Imaging, Records, Information Rights



SOA & Process Management

ESB, BPEL PM, Workflow, BAM, Rules, B2B, MDM, Registry, SOA Governance



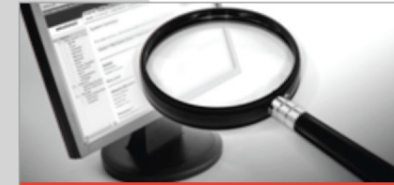
Application Server

Java EE, Web Services, Complex Event Processing, XTP, RFID & Sensors, SIP



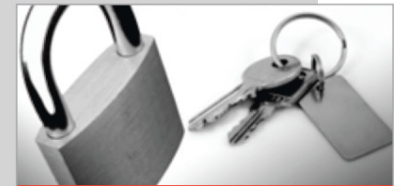
Grid Infrastructure

Application Clusters, In-Memory Data Grid, Common Metadata Services



Enterprise Management

Provisioning, Diagnostics, Tuning, Configuration Management

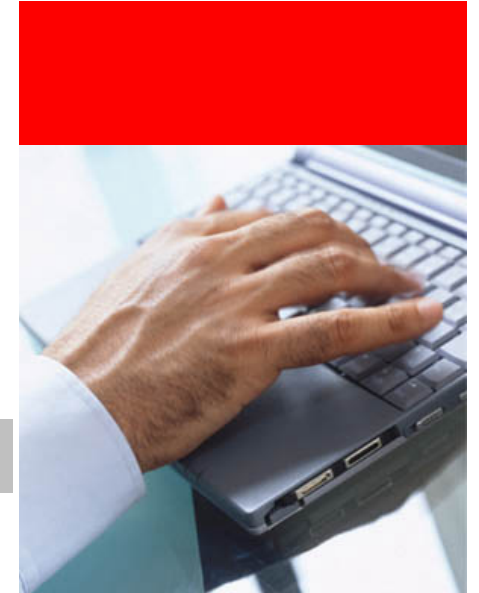


Identity Management

Provisioning, Access Management, Federation, Audit, Directory

Program **Agenda**

- Web 2.0
- Heterogeneous Applications Environments
- WebCenter for “next generation” Interfaces
- Enterprise Mash-up. Bringing Applications together.





Next Generation Applications

Web 2.0

Social Networks



What is Web 2.0?

Not a new technology, but a new mindset.

- Web 2.0 is the combination of three distinct avenues of Web Design:
 - RIA (Rich Internet Applications)
 - Loosely Coupled Applications
 - Collaboration / Relationship based web-experience



Rich Internet Applications (RIA)

- Web Applications that have the features & functions of Client/Server style applications.
- RIA Implement:
 - Client side processing to allow richer more responsive UI than traditional Web Applications
 - Asynchronous communication with the server (generally AJAX) allowing for screen refresh without requiring full page refresh
 - Greater Network efficiency as only the required data travels the network



Mash-up

Mash-up

- A web based application that combines data from more than one disparate sources into a single integrated service.

“Enterprise Mash-up”

- The term for Web applications that combine content from more than one enterprise information source into an integrated experience.
 - Includes the integration of structured & unstructured data from such sources as ERP applications, Content Management, Collaborative services.

“Service-oriented business applications (SOBAs)”

- Compound applications composed of services in a declarative manner.



Collaborative Web

Primary characteristic of the Web 2.0 Platform.

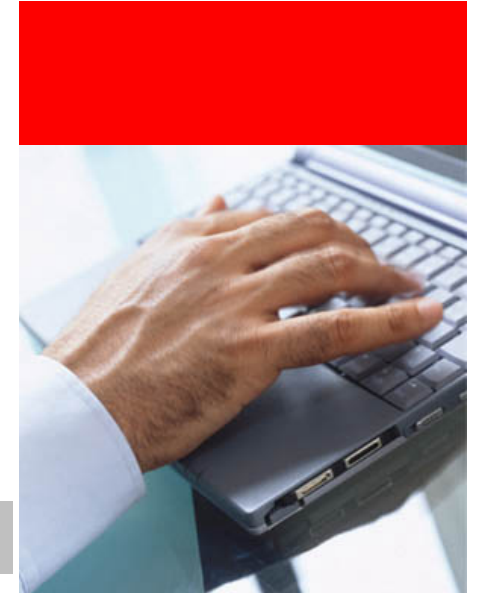
- Ability for users to contribute to, and collaborate on, the nature of information and how it relates to their needs.
- Social Networking allows users to define relationships with others to optimize the access to, and use of the available information.

Implemented via technologies such as;

- Wiki, Discussions, Tag Clouds, Blogs, RSS feeds

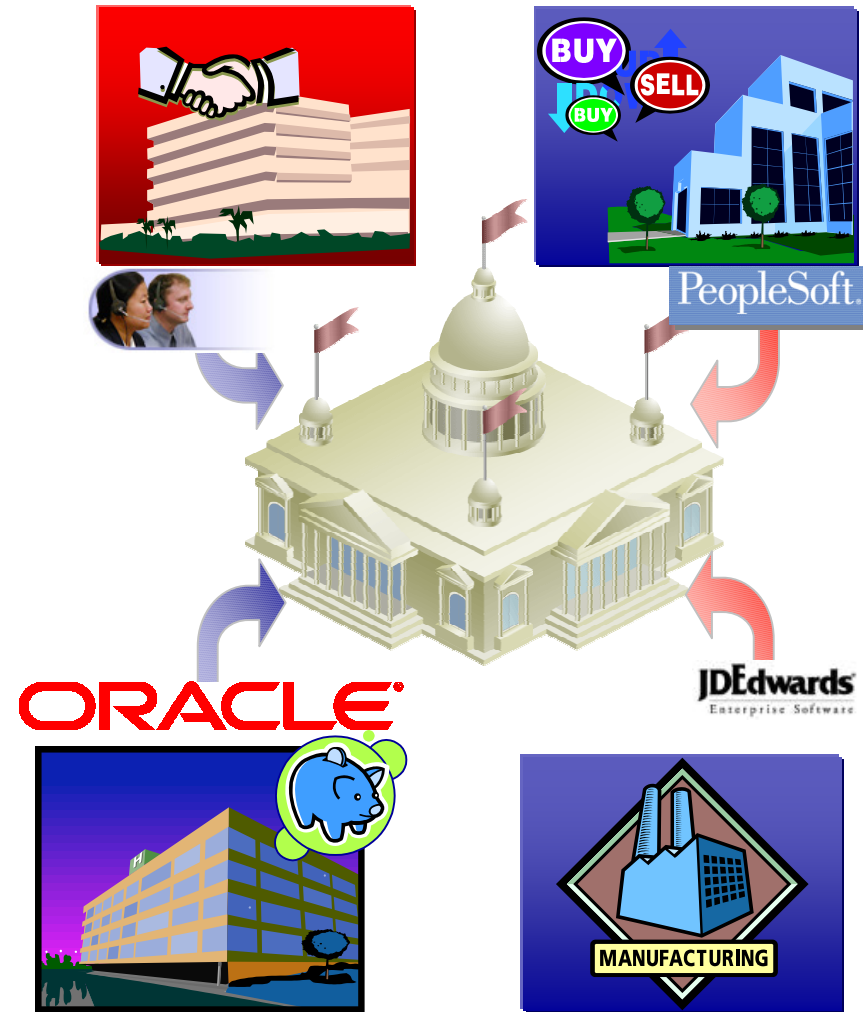
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Heterogeneous Software Environment

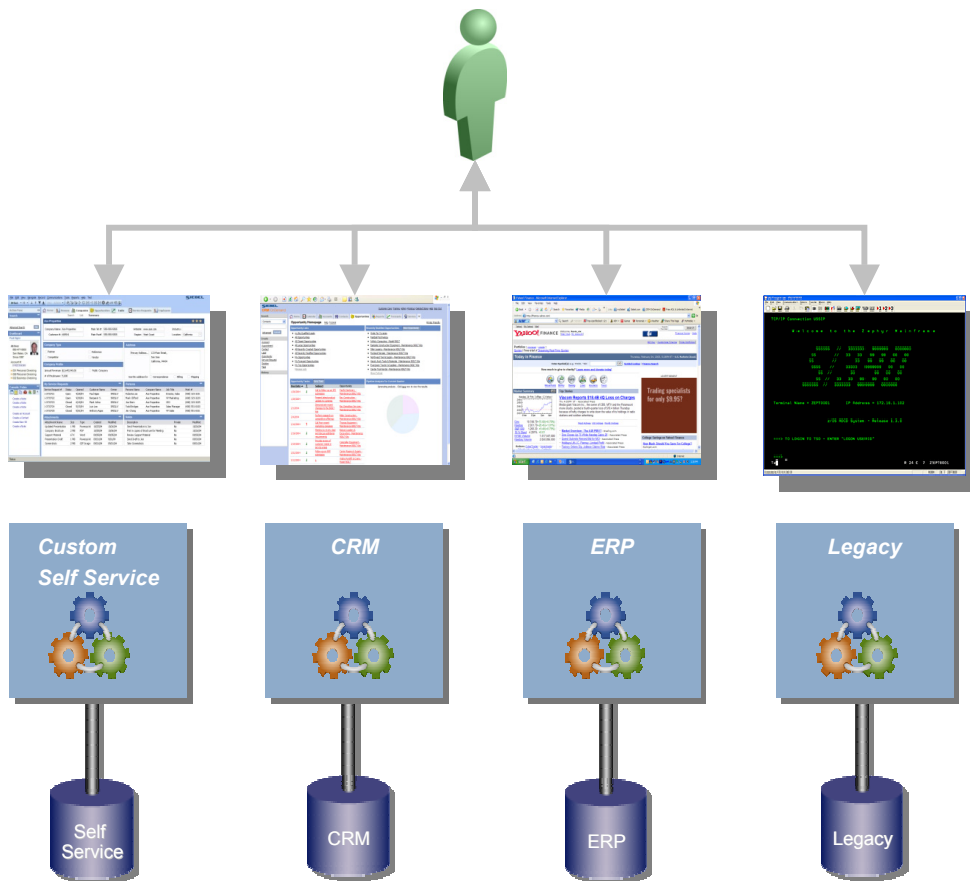
- Few organizations are homogenous with their business applications.
- Software Purchases by different LOBs
 - Consolidation of companies
 - Business Partners
- Each have different User Interfaces & processes.
- Applications & data are functional islands.



Different LOB's buy "best of breed"

Siloed Application Environments

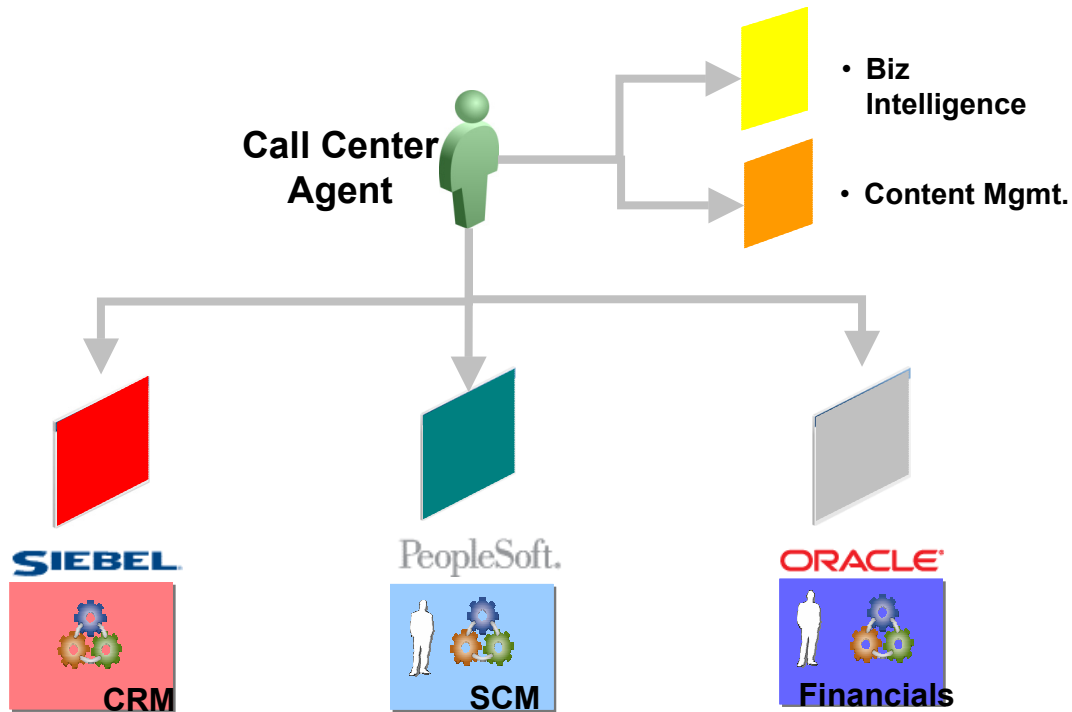
Make Change Difficult



- Orchestration of the business process is driven by the user.
 - inconsistent and error prone
- Process logic is often duplicated across the application stack.
- Changing the process can be complicated, risky and often costly.

User Interaction

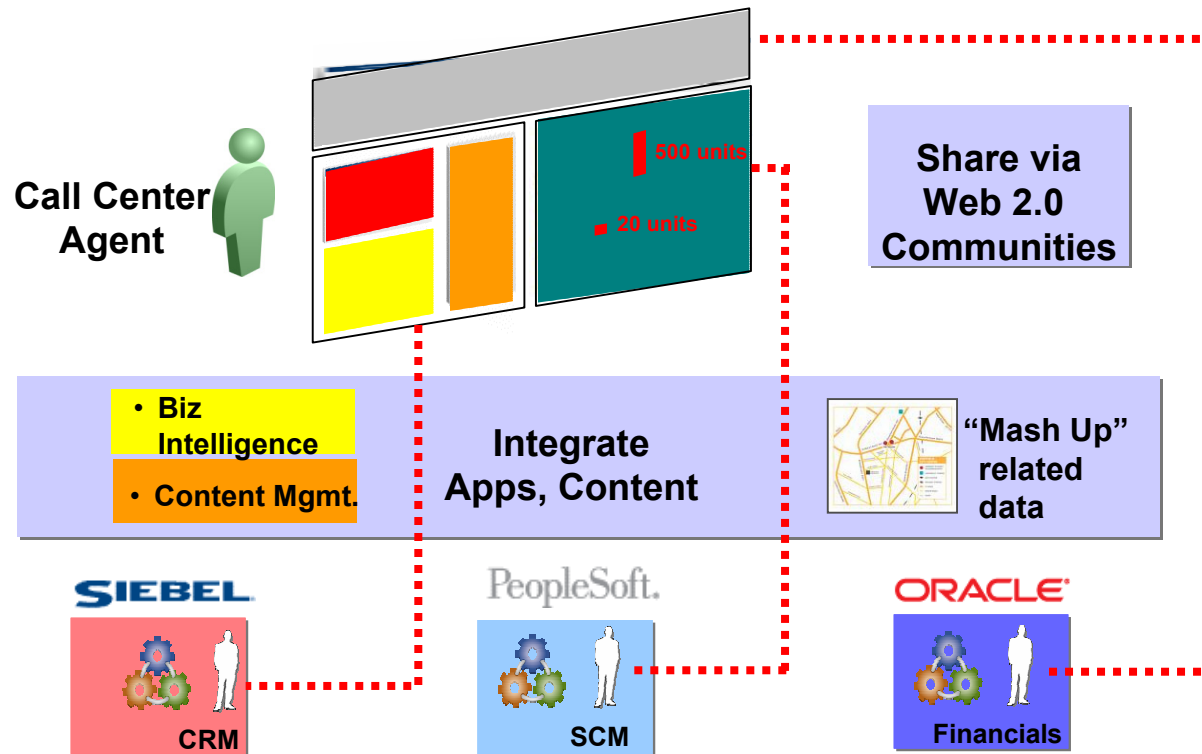
Individual tasks transcend a single application



- User must access multiple applications to complete task.
- User must retain the “transaction context” as they move from application to application.

Overlay Application Requirement

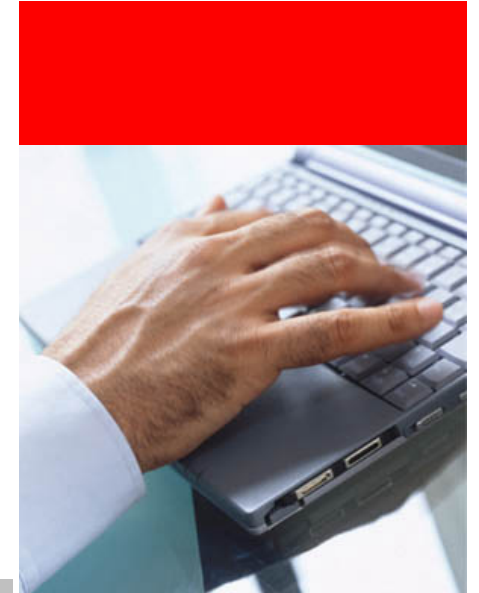
Single Application Interface across applications.



- Compound Application brings the disparate applications together.
- User can see the transaction context across applications, allowing them to focus on the business process.

Program **Agenda**

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Oracle WebCenter



Development Tools

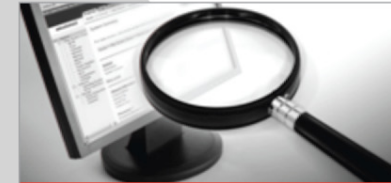
Unified SOA Development Tool & Framework



User Interaction

Web 2.0 Portal, Rich Internet Apps, Mobile, Search, Desktop, Presence, VoIP

- **A new platform for user interaction**
- **Combines the best of:**
 - Portals (portlets, customization)
 - Rich client development frameworks
 - Web 2.0 Collaborative & Content Services
- **SOA enabled, hot-pluggable**
- **Supports the latest Java UI standards: JSF, JSR-227, JSR-168, JCR 1.0**
- **Foundation for Fusion Applications**



Enterprise Management

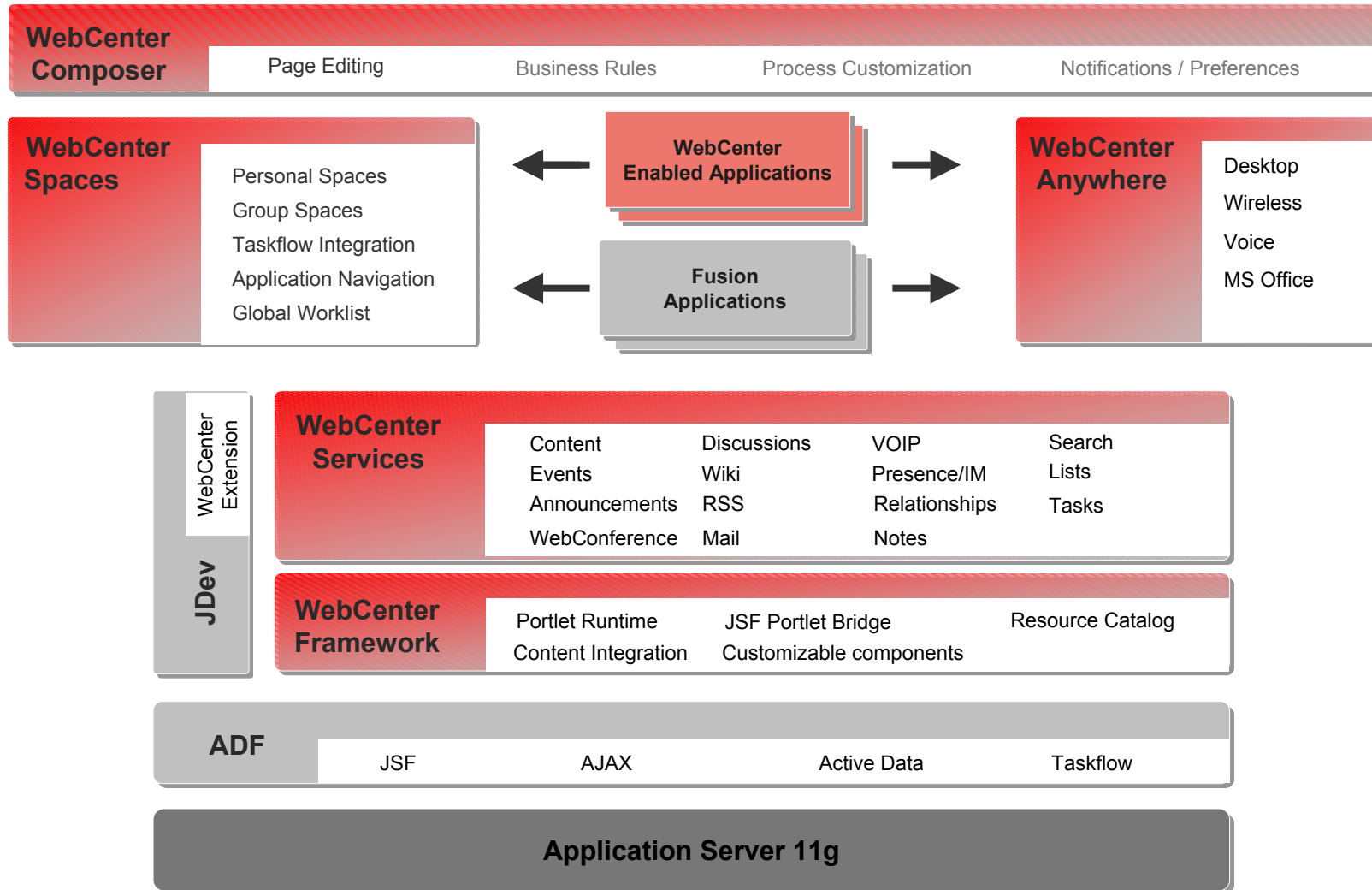
Provisioning, Diagnostics, Tuning, Configuration Management



Identity Management

Provisioning, Access Management, Federation, Audit, Directory

WebCenter Suite 11g Architecture



Bringing a new UI to Applications Unlimited

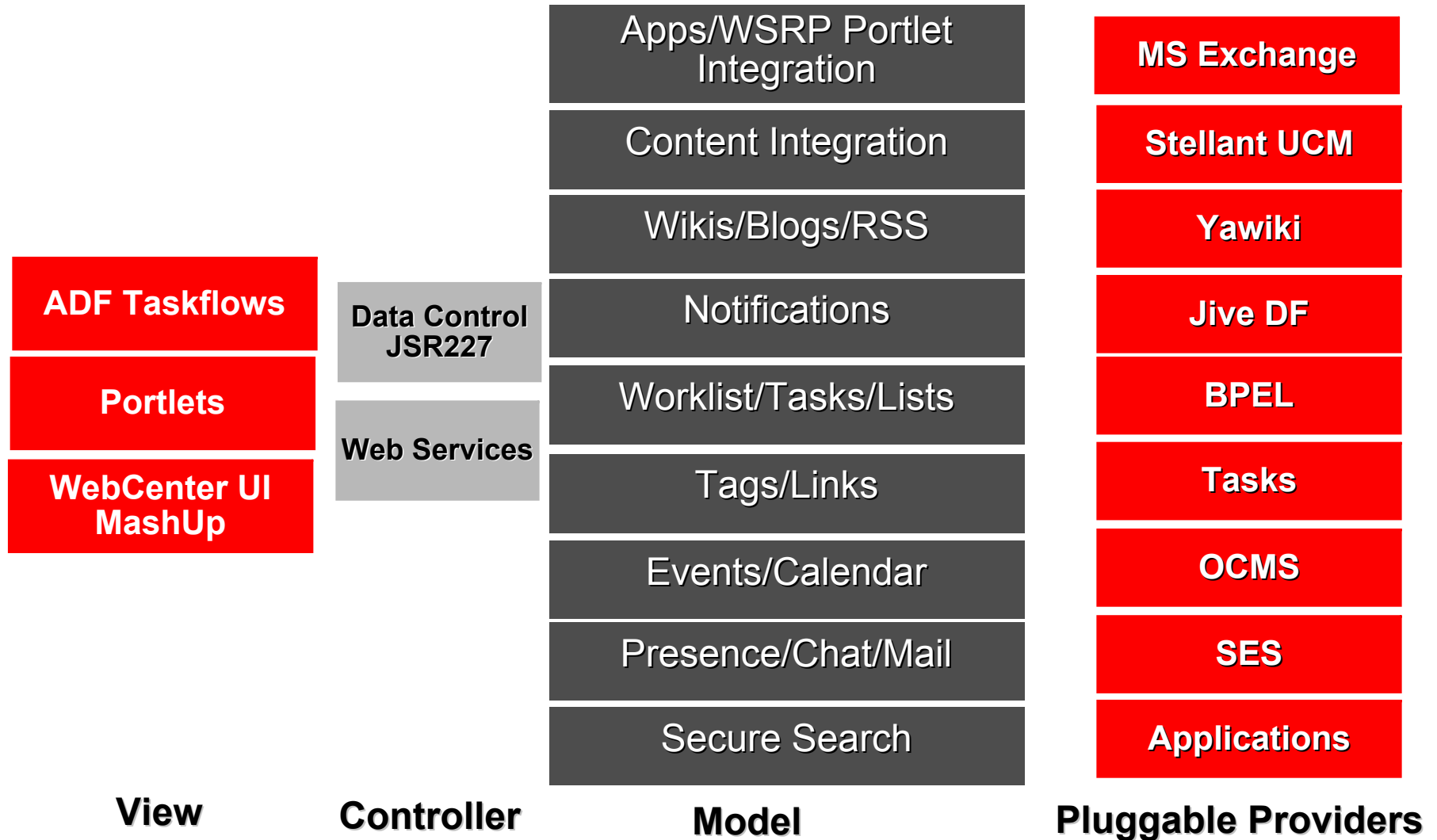
The screenshot displays the Oracle CRM 8.1 web interface for a product listing. The main content area shows a list of televisions with columns for 'Select', 'Product Icon', 'Product Name', 'Discount', 'Price', and 'Add To Cart'. The product list includes items like 'EDTV - Panasonic TH-42PWD8LUK 42" Plasma' and 'Hitachi Ultravision 42HDS69 42" Plasma HDTV'. The interface also features a 'Shopping Cart' on the left, a 'Compare' section on the right, and a 'Hot Offers' section at the bottom right. The Oracle logo is visible in the top left corner.

*CRM 8.1

- Allows for development of Web 2.0 style interfaces over the “Applications Unlimited” back end structures/processes.

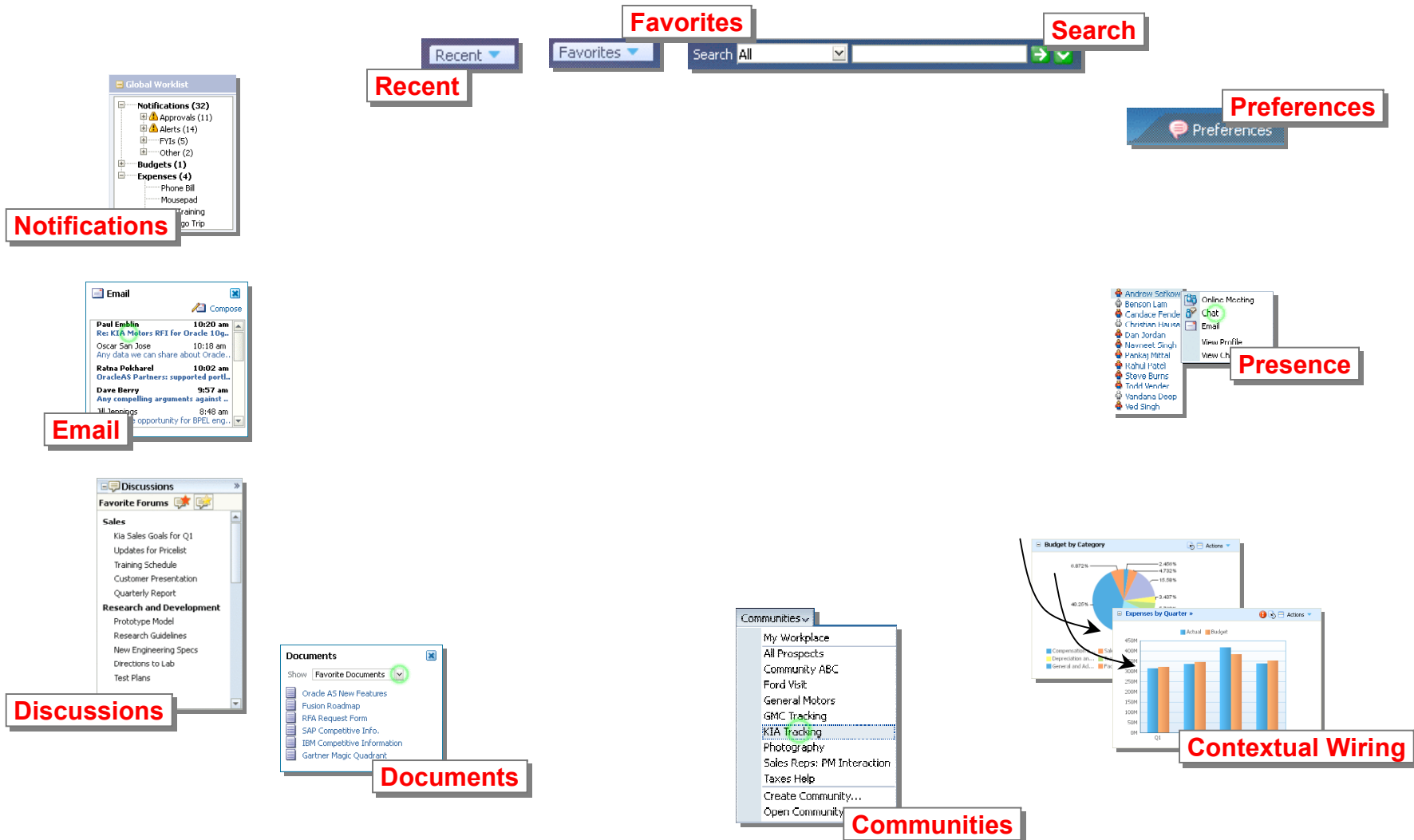
WebCenter Web 2.0 Services

Discussions, Tags, Wikis, Notifications, Blogs...



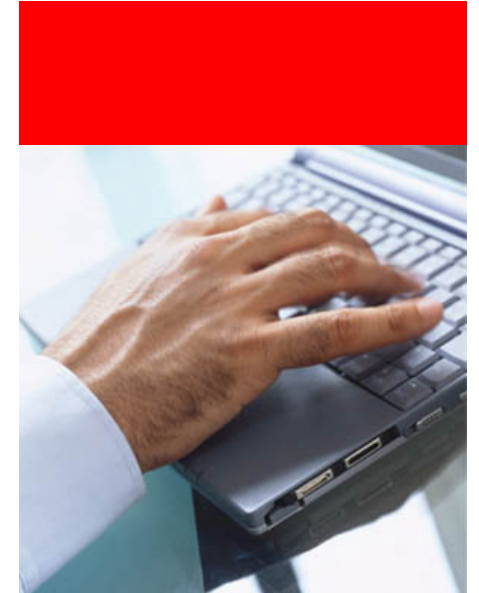
Enterprise Mashup Services

Oracle Fusion Middleware and WebCenter



Program **Agenda**

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- WebCenter for “next generation” Interfaces
- Enterprise Mash-up. Bringing Applications together.





“Applications Unlimited” Integration

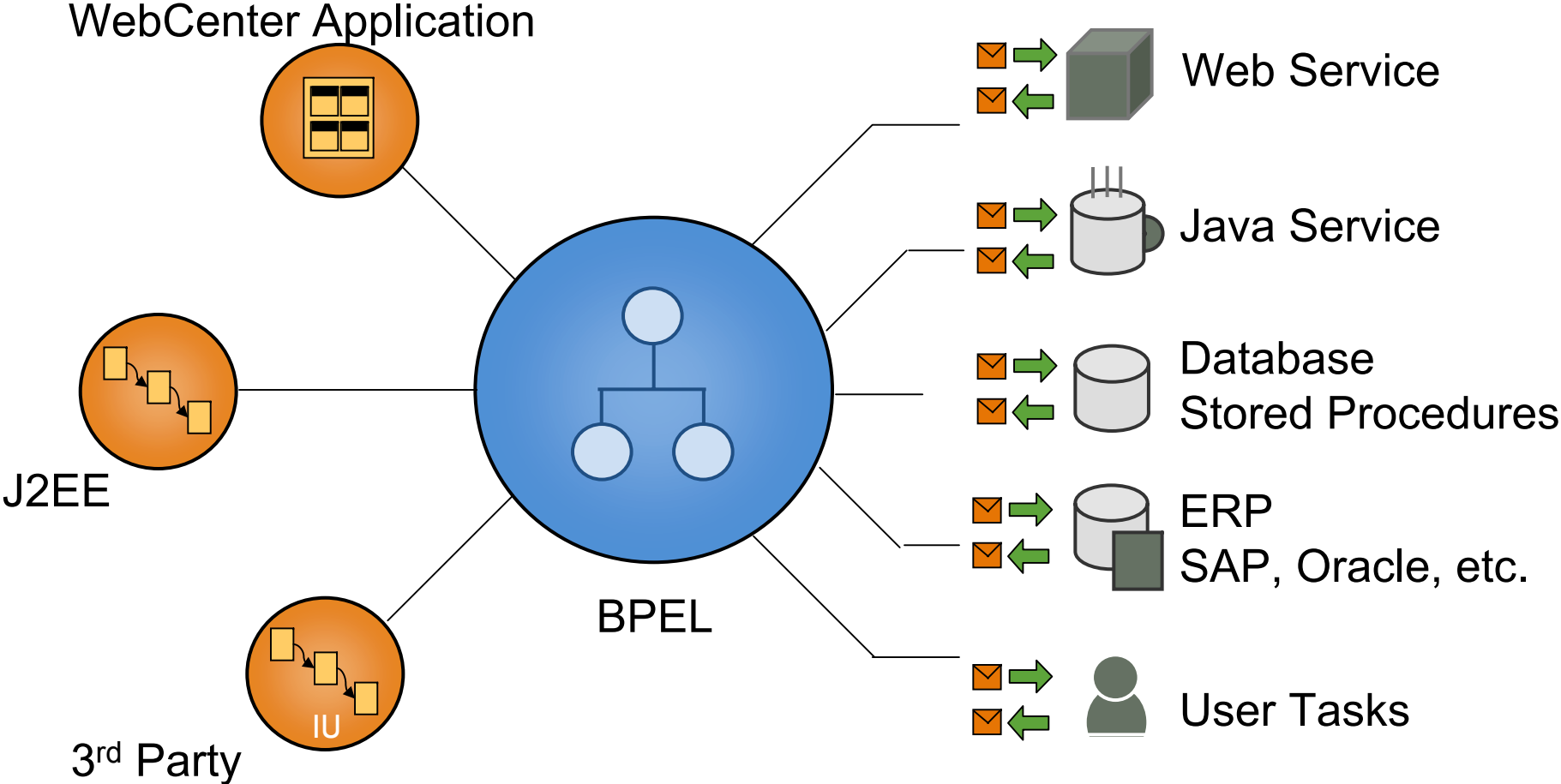
Keeping transaction context.

- “Task” Integration across different “Applications Unlimited” suite applications is 2-fold.
 - “Back-End Integration”
 - Data Transformation and Routing
 - Process Orchestration
 - “On The Glass” Integration.
 - Compound Applications allow the user to see context and process accordingly.
- Both are ultimately required!!



BPEL, The Orchestrator

Orchestrate & Transform



Human Workflows

Workflow Wizard - Step 2 of 4: Workflow Pattern

Please select a Workflow Pattern. The subsequent pages will collect information based on the Pattern you have chosen.

Workflow Patterns

Specify the Workflow workflow. The procedure activities based on the

Workflow Name

Variable Name

Description

- Simple Workflow
- Simple Workflow With Automatic Renewal
- Sequential Workflow
- Sequential Workflow With Automatic Escalation
- Parallel Workflow
- FYI Task
- Adhoc Workflow
- Parallel Workflow With Final Reviewer

Help < Back Next > Finish Cancel

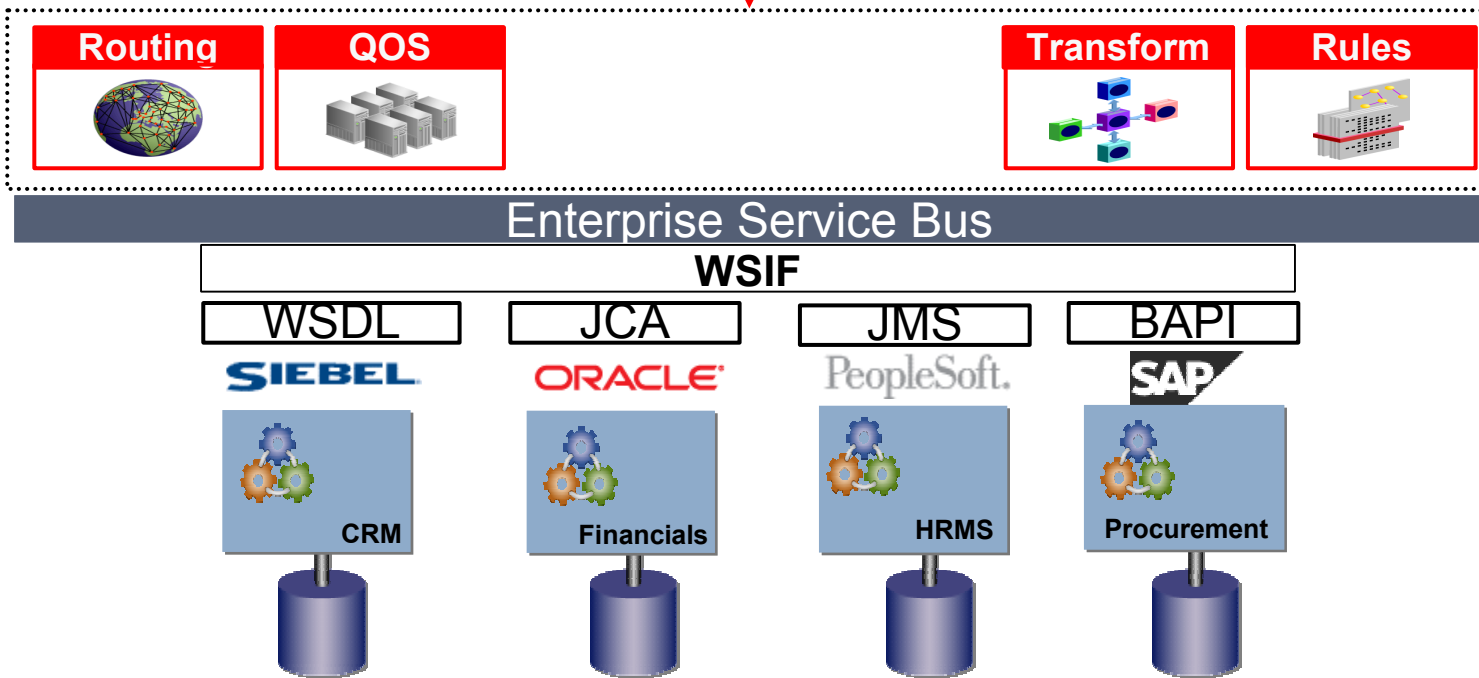
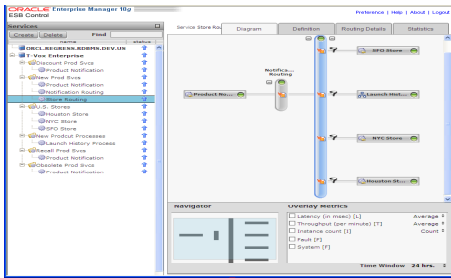
The screenshot displays the Oracle BPM Worklist Express interface. The top window shows a task detail view for 'Hiring Approval for Dev Engineer'. The task action is 'Select an Action', and the task key is 'HiringApproval'. The task is assigned to 'jooper' and was created on 12/22/04 at 05:37 PM. The task details include a position of 'Dev Engineer', a salary of '\$8000', and a task key of 'HiringApproval'. The task is currently in a 'Pending' state. The task details also show a comment: 'Job Description attached - pl check if it is adequate (others) Please attach resume as well (jooper) Resume attached.' and an attachment named 'Resume.pdf'. The bottom window shows a task list view with columns for Task Name, Priority, Status, Assignee(s), Execution Date, Task Name, Task Name, and Action. The task list contains 10 rows of tasks, all assigned to 'jooper' and in a 'Pending' state.

Task Name	Priority	Status	Assignee(s)	Execution Date	Task Name	Task Name	Action
Expense Approval for Daily	3	ASSIGNED	jooper (0)	12/22/04 10:47 PM	jooper	12/22/04 05:47 PM	Select an Action
Expense Approval for Daily	3	ASSIGNED	jooper (0)	12/22/04 10:47 PM	jooper	12/22/04 05:47 PM	Select an Action
Expense Approval for Daily	3	ASSIGNED	jooper (0)	12/22/04 10:33 PM	jooper	12/22/04 05:33 PM	Select an Action
Travel Request for Daily	3	ASSIGNED	jooper (0)	12/22/04 05:37 AM	jooper	12/22/04 06:34 PM	Select an Action
Travel Request for Daily	3	ASSIGNED	jooper (0)	12/22/04 05:45 AM	jooper	12/22/04 05:45 PM	Select an Action
Travel Request for Daily	3	ASSIGNED	jooper (0)	12/22/04 05:46 AM	jooper	12/22/04 05:46 PM	Select an Action
Travel Request for Daily	3	ASSIGNED	jooper (0)	12/22/04 06:43 PM	jooper	12/22/04 05:43 PM	Select an Action
Travel Request for Daily	3	ASSIGNED	jooper (0)	12/22/04 06:43 PM	jooper	12/22/04 05:43 PM	Select an Action
Travel Request for Daily	3	ASSIGNED	jooper (0)	12/22/04 06:43 PM	jooper	12/22/04 05:43 PM	Select an Action
Travel Request for Daily	3	ASSIGNED	jooper (0)	12/22/04 07:10 PM	jooper	12/22/04 05:10 PM	Select an Action

Transactions often require user input/approval.

Enterprise Service Bus

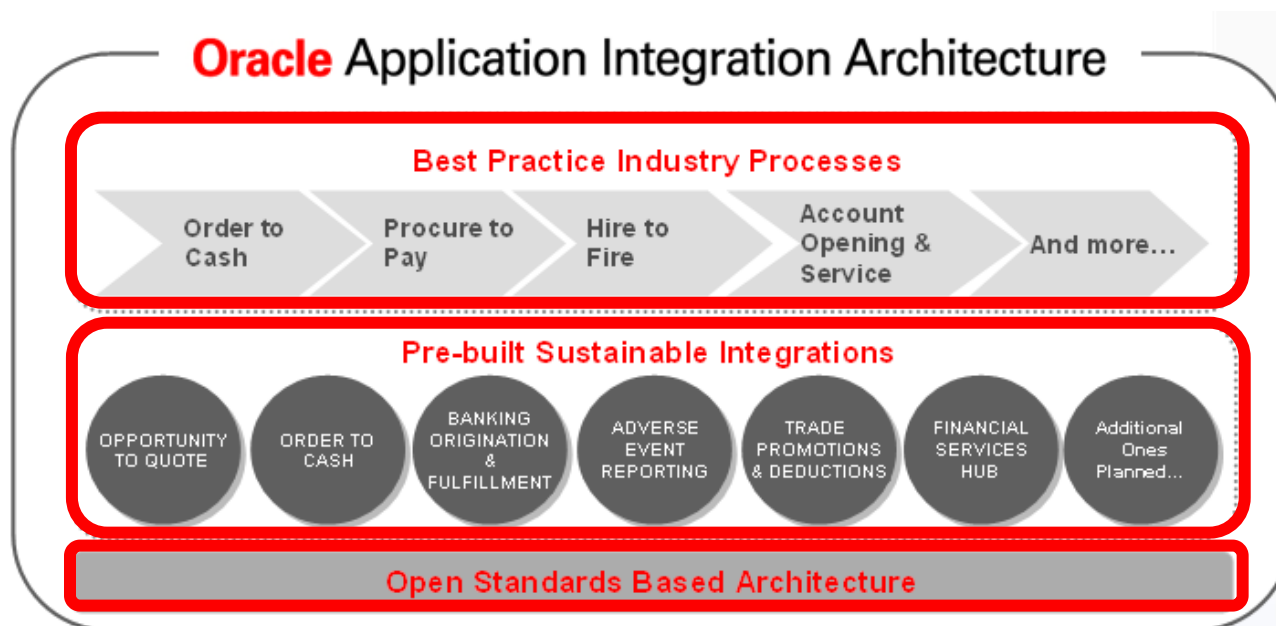
Connect & Route - Expose Everything As A Web-Service



Oracle Application Integration Architecture

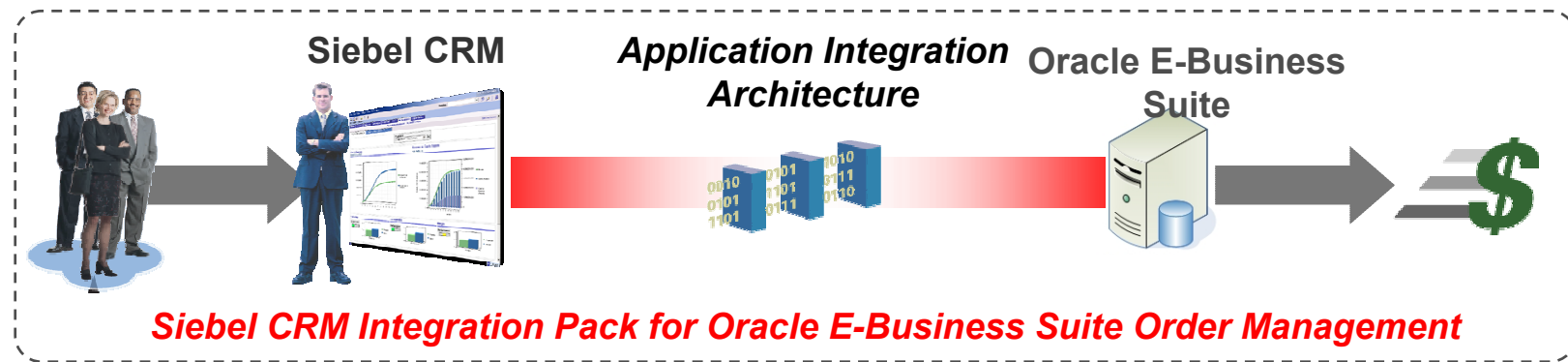
Simplifies the implementation of SOA

- **Best Practice Industry Reference Models:** Optimize business performance by using documented industry best practices processes
- **Pre-built, Process Integration Packs:** Quickly integrate Oracle Applications to create the business processes you need, without the risk
- **Open Standards Architecture for Innovation:** Accelerate time to value through a pre-built SOA



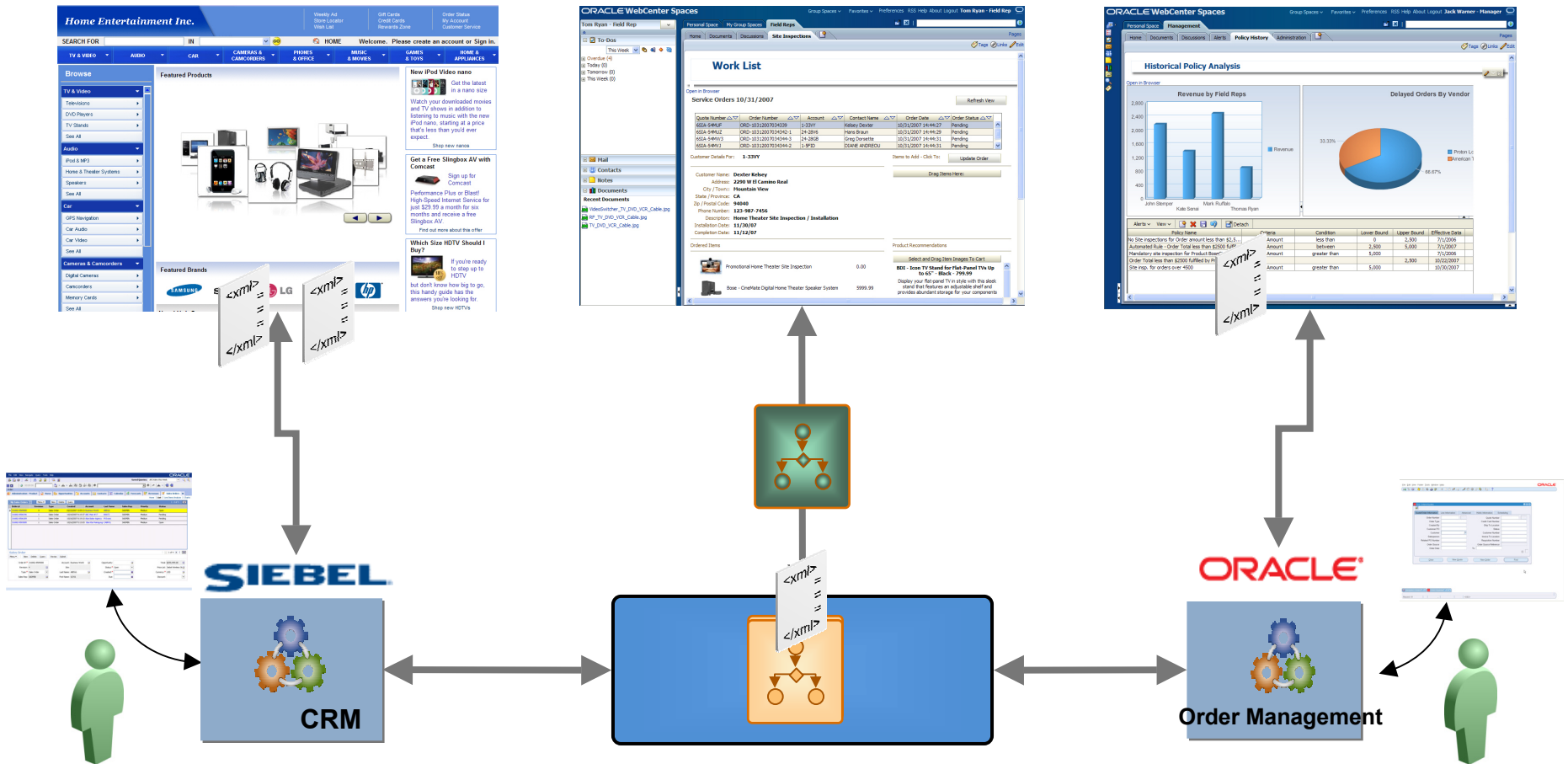
AIA - Order to Cash

End to End Business Process Management



**Integrated Order Lifecycle between
Front and Back Office Systems in Real
Time**

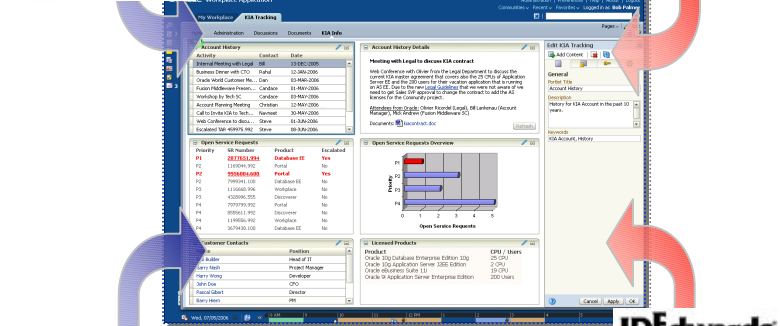
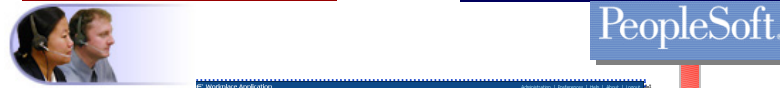
Overlay Web 2.0 on "Orders-to-Cash"



Application Integration Architecture

WebCenter is the “face” of SOA

The WebCenter Framework allows for disparate application services to be loosely coupled, within a single User Interface, to form a new application.



Different LOB's buy “best of breed”

Compound Application

Exposing Application Components

Partner Details: Y Gen Beverages

Search

General Ad Impressions

Corporate Details (CRM)

Name	YGen Beverages
Location	HQ
Address	2 Harrison Road
City	Sth. San Francisco
State	CA
Post Code	94112
Main Phone Number	(650) 555-1818
Home Page	http://www.ygenbev.com

Order History (Siebel-CRM)

Order #	Date	Type	Status	Priority	Notes
316882-5024854	11/4/2007 03:04:26 PM	Web Order	Open	Medium	
316882-5024888	11/1/2007 03:09:21 PM	Sales Order	Shipped	Medium	

Recent Activities (Siebel-CRM)

Activity	Description	Priority	Status	Date	Notes
Meeting	First Meeting with Ygen to talk about promoting the new blue bull drink	3-Medium	Closed	10/24/2007 08:37:57 AM	
Marketing Program	Promote Beverages from YGen across Partner Websites	3-Medium	Confirmed	11/4/2007 02:25:25 PM	
Demonstration	Showed the new targeted sales model of the website	2-High	Closed	11/4/2007 02:19:45 PM	

Invoice History (EBS)

Nr	Issued	Paid	Text	Amount	Notes
29987	13/11/2006	19/11/2006	Cannonball Ad	887.99	
31558	15/12/2006	1/01/2007	Blue Bull Campaign	1344	
32558	15/01/2006	21/01/2007	Dr. Salt Ad	210	

- The end-user sees the transaction “in Context” within the one screen.
 - Focus on the task in hand.
- Allows for overlay of Web2.0 features onto the transaction.

CRM Data (Siebel)

Interface to Wiki/Discussions

Accounts Receivables (EBS)



Exposing Application Components

Building the Component UI

ERP Integration into a WebCenter Application

1. Web-Services Data-Control

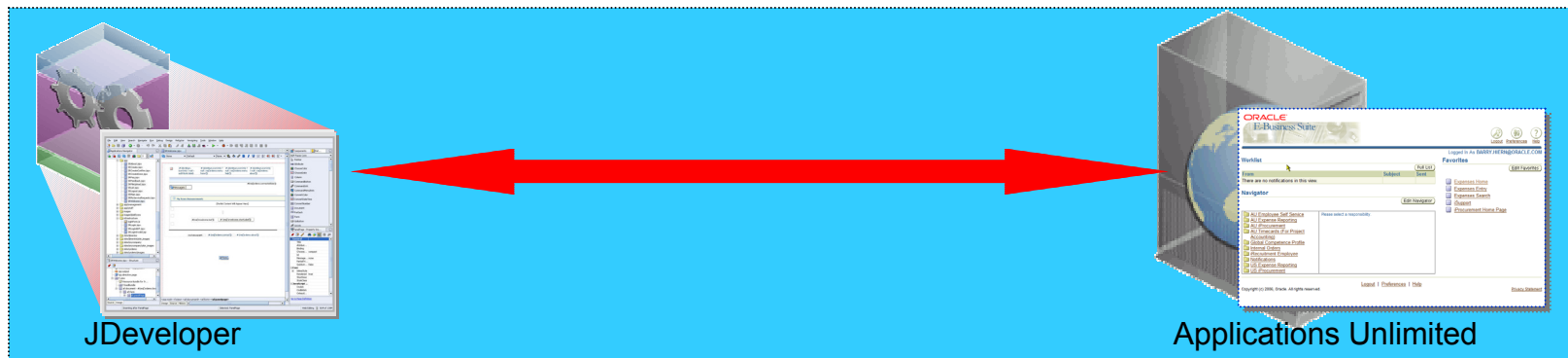
- Native Application WebService
- Middle-tier (SOA) based solution to act as the WS
 - BPEL, ESB
- Automated Binding of UI from Data-Control

2. Portlets

- Predominately WSRP based Portlets
- Expose ADF components via JSF Portlet bridge.

Exposing Application Data in WebCenter

Calling a Web-Service.

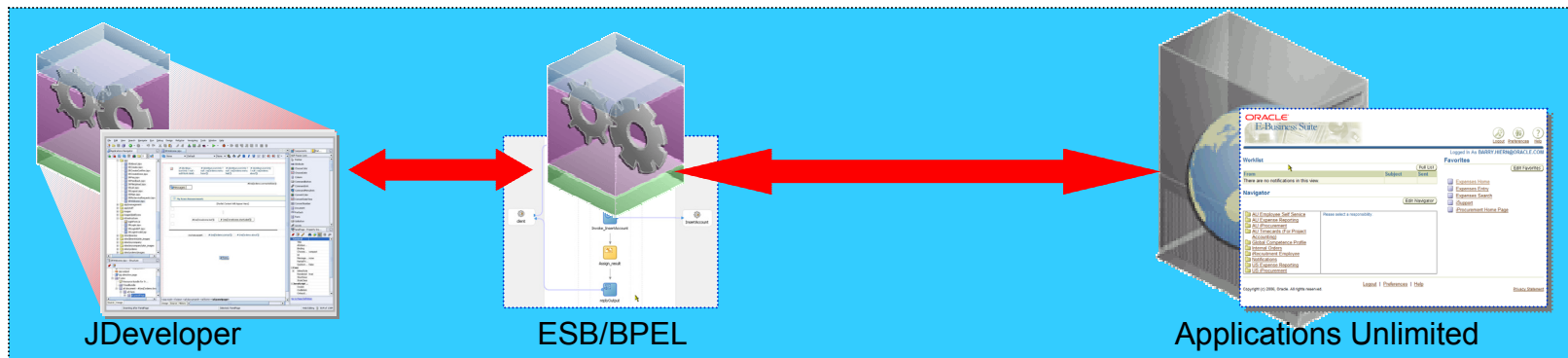


Direct ADF integration

- If Web-Service returns scalar data-types create Data-Control directly from web-service
- Expose Return values as “bound” ADF components

Exposing Application Data in WebCenter

Calling a Web-Service.



Proxy Through SOA Middle Tier (transform)

- **Integration via ESB:** Route & Transform the data to reflect the UI requirements
- **Integration via BPEL process:** If more complex orchestration or transformation is required.

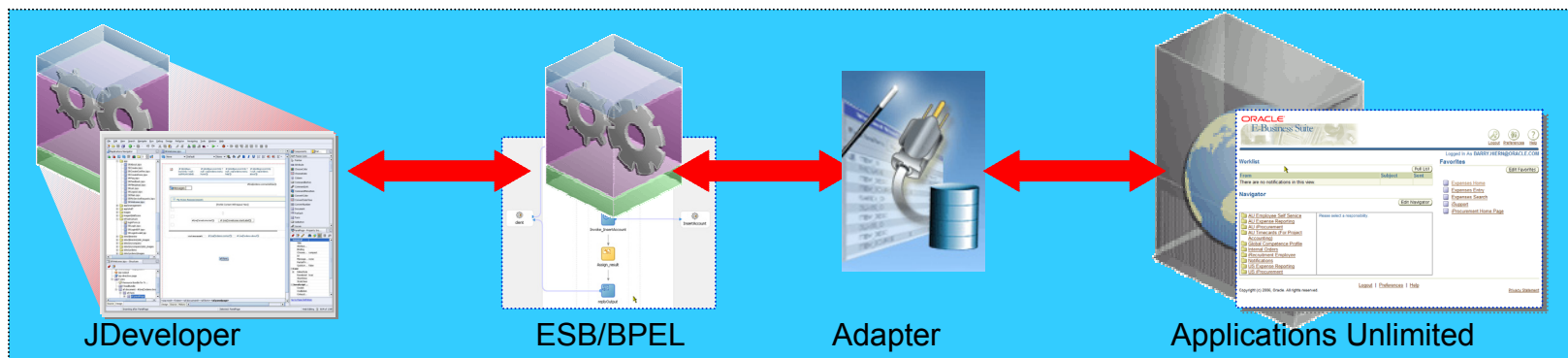
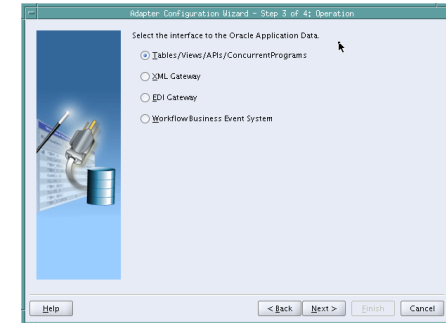
Expose SOA middle-tier components as Web-Service which is consumed in a Data-Control.

Exposing Application Data in WebCenter

Calling a Web-Service.

Application Adapters

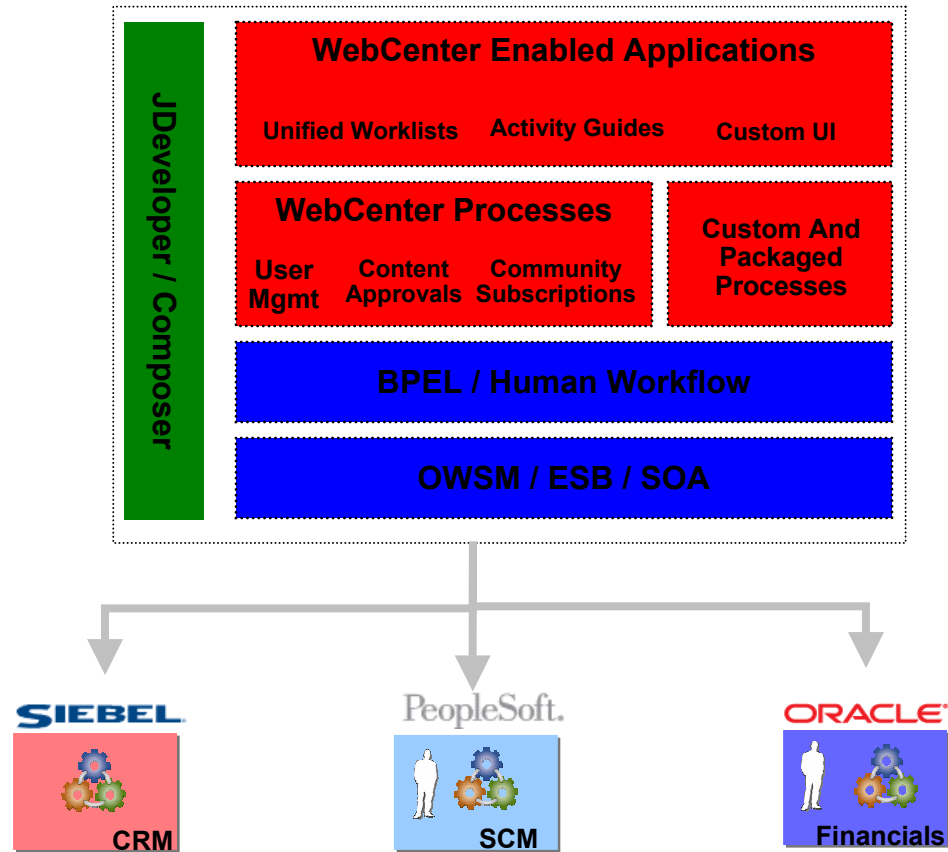
- Exposes the lower level application "Business Objects"
 - Supports multiple Application interfaces
- Allows for the definition of a web service
 - Subsequently transformed and exposed via ESB/BPEL
- Data-Control built against middle-tier SOA component.





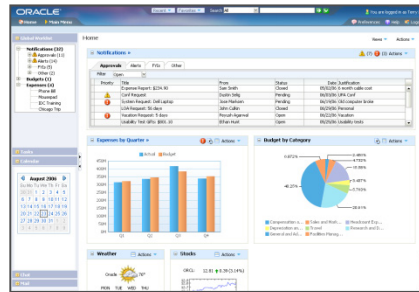
SOA Integration

Leveraging SOA platform for Web2.0



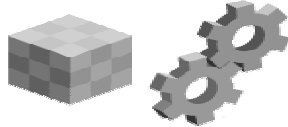
Oracle WebCenter Portlet Framework

Integrate Enterprise Applications



Integrate Applications

JSR-168,
WSRP



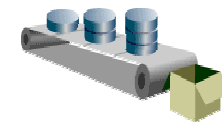
WSRP
(Portlets)



SAP iViews



Web
Clipping



Adapters

PeopleSoft.

ORACLE

JD Edwards

SIEBEL



Custom
Applications

Mainframe

ORACLE

Bind Portlets to WebCenter Applications

Add at Design Time & Runtime*

The image shows two overlapping windows illustrating portlet binding. The left window, titled 'branding brandingApp', is a design-time view showing a page layout with a 'Title 1' header, three portlets labeled 'My Information1', 'Find Products1', and 'Find Products2', and footer elements 'appCopyright' and 'appAbout'. The right window, titled 'menuGlobal', is a runtime view of the same application in a Mozilla Firefox browser. It shows the rendered page with the 'My Information' portlet displaying user details (Name: Stu Marx, Address, Phone, Email), the 'Catalog Search' portlet with a search form, and the 'Find Products' portlet with a search interface. A table titled 'Recent Orders' is also visible with columns for Capture ID, BO Name, Descr, and Total Price.

*R11

Portlets as part of Web2.0 UI

The screenshot displays the Oracle Workplace Application interface. At the top, it says "ORACLE Workplace Application" and "My Workplace KIA Tracking". Below this, there are navigation tabs: "Home", "Administration", "Discussions", "Documents", and "KIA Info".

The main content area is divided into two portlets:

- Account History:** A table listing activities with columns for Activity, Contact, and Date.
- Account History Details:** A text area providing details for a specific activity, including a meeting with legal to discuss the KIA contract.

Below the main content, there is a red-bordered window titled "EnterpriseOne". This window contains a menu on the left and a main area for "Work With Addresses". The menu includes "Open Applications" (Customer Service Inquiry, Work With Addresses), "Fast Path" (P01012), and "Roles" (OWTOOL). The main area has a toolbar with icons for Select, Find, Add, Copy, Delete, Close, Row, Report, and Tools. It also includes search fields for Alpha Name and Search Type, and checkboxes for "Display Phone" and "Display Address". A message "No records fetched." is displayed above a table with columns: Address Number, Alpha Name, Long Address, and Indust Class.

Applications Unlimited content exposed directly in Web2.0 based UI



Oracle Applications Unlimited

Certified with Oracle WebCenter Suite

- Now Available – Enterprise Portal
 - E-Business Suite: DBI (11i, 12.0)
 - PeopleSoft: Certified 8.45+, 9.0; also PeopleSoft Portal
 - Siebel CRM: Certified 7.8.2+; also 8.0
 - Siebel Analytics: 7.8+, 10gR3
- Imaging & Process Management
 - E-Business Suite: 11.5+, includes 12.0
 - PeopleSoft: Certified 8.4+; also 9.0
 - JD Edwards Enterprise: Certified 8.9x+
 - JD Edwards World: A 9.1



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