Oracle Applications Unlimited and Web 2.0: You Can Have It Now!

Manish Devgan
Product Manager – Oracle WebCenter & Portal Products
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Introduction

• Product Manager – Oracle WebCenter & Portal Products

• Prior Experience
  • Lead/Architect for WebCenter Security Framework
  • Architect for BEA WebLogic Portal (WLP) Services

• Patents in Collaboration, Security, Entitlement Management

• Books
  • BEA WebLogic Platform – SAMS Publishing 2003
  • Contributing Author: Reshaping Your Business with Web 2.0 – McGraw Hill 2008

• Featured Speaker at various conferences
Program Agenda

Web 2.0
- Advent of Web 2.0 in the Enterprise
- Challenges facing Enterprise Applications
- WebCenter and its Web 2.0 capabilities
- WebCenter, SOA, and AIA
- Using WebCenter to “Web 2.0-enable” your Applications
What is Web 2.0?

• Not a new technology

• Web 2.0 is the combination of three distinct avenues of Web design:
  • RIA (Rich Internet Application)
  • Collaboration / relationship based Web experience
  • Mashups
Web 2.0

Wikis are indispensable tools for knowledge

Blogs provide information, analysis and opinion

Social networks connect and illuminate

Widgets and mashups extend functionality

Link analysis surfaces most relevant content

Tags and bookmarks personalize content
Rich Internet Application (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 partial page refresh
Collaborative Web

Primary characteristics 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
Mashups

“A Web-based application that combines data from more than one disparate source into a single integrated service”
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Advent of Web 2.0 in the Enterprise

Internal Resources
- Oracle E-Business Suite
- PeopleSoft
- Siebel Call Center
- Legacy
- Oracle Transportation Management
- JD Edwards EnterpriseOne
- Siebel CRM On Demand
- Other CRM

External Resources
- Email
- Phone
- Browser
- IM
- RSS
- Desktop

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## Translating Web 2.0 to the Enterprise

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<th>Technology</th>
<th>Consumer (Web 2.0)</th>
<th>Enterprise</th>
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<td>Sharing opinions, reviewing products</td>
<td>Thought Leadership, Product Evangelism</td>
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<td>Social Networks</td>
<td>Meeting friends &amp; acquaintances</td>
<td>Connecting with Subject Matter Experts, content, and processes</td>
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<td>Mashups</td>
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<td>Page Ranking – relevant content</td>
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Today’s Enterprise Challenge
Heterogeneous Software Environment

- LOBs buy “best-of-breed”
- Consolidation of Companies
- Business Partners
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
Solution..

..single Application Interface across applications

• Composite Application brings the disparate applications together.

• User can see the transaction context across applications, allowing them to focus on the business process.
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Oracle WebCenter

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
Building Enterprise Mashups using WebCenter
Enterprise-Ready Web 2.0 Services

**Social Networking**
- Announcements
- Blog
- Discussions
- Instant Messaging and Presence
- People Connections
- Wiki

**Personal Productivity**
- Documents
  - Events
  - Links
  - Lists
  - Page
  - Tags
  - Tasks
- Mail
  - Notes
  - Recent Activities
  - RSS
  - Search
  - To-Dos
  - Worklist

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WebCenter Services

People Connection

- Search Profiles & Tag Users
- Manage Connections
- Monitor Activity Stream

LDAP Profile Store
Application Specific Profile Store

Activities:
- Adding a page
- Uploading a document
- Adding a business component in composer
- Participating in a Discussion Forum

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WebCenter and SOA
What is SOA?

Service Oriented Architecture is an architectural style whose goal is to achieve loose coupling among interacting software agents. A service is a unit of work done by a service provider to achieve desired end results for a service consumer…

- Dr. Hao He, W3C Web Services Architecture Working Group
WebCenter and SOA
The path to a perfect match

- Structured Processes
- Unstructured Interactions
SOA and AIA
AIA 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

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![Oracle Application Integration Architecture](image)

- **Best Practice Industry Processes**
  - Order to Cash
  - Procure to Pay
  - Hire to Fire
  - Account Opening & Service
  - And more...

- **Pre-built Sustainable Integrations**
  - Opportunity to Quote
  - Order to Cash
  - Banking Origination & Fulfillment
  - Adverse Event Reporting
  - Trade Promotions & Deductions
  - Financial Services Hub
  - Additional Ones Planned...

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AIA Process Integration across Oracle Applications

Features:
✓ Predefined process flows
✓ Extensible framework
✓ Deployment methodology and more…
AIA - Order to Cash
End to End Business Process Management

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

Siebel CRM Integration Pack for Oracle E-Business Suite Order Management
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Using WebCenter to “Web 2.0-enable” your Applications
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
Overlay Web 2.0 on “Order-to-Cash”

Application Integration Architecture
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
• **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
Oracle WebCenter Portlet Framework
Integrate Enterprise Applications

Integrate Applications

JSR-168, WSRP

WSRP (Portlets)
SAP iViews
Web Clipping
Custom Applications

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Bind Portlets to WebCenter Applications
Add at Design time & Runtime
Exposing Application Components
Building the Component UI

ERP Integration into a WebCenter Application

• 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

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

1. Web 2.0 is a combination of RIA, Collaboration / relationship-based Web experience, and Mashups

2. Web 2.0 technologies are rapidly being leveraged by Enterprise Applications

3. WebCenter provides “Enterprise-ready Web 2.0 services” and a platform to build Mashups

4. WebCenter and SOA – the perfect match to “Web 2.0 – enable” your Enterprise Applications”!
Collaboration...
Social Networking..
Mashups…
Putting Web 2.0 in the Enterprise…
AJAX and Beyond…
Security and Compliance…
More..
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