Building a Complex Web Application Using ADF and Siebel

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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.
Agenda

- Fusion Middleware Overview
- jDeveloper / ADF Overview
- Orion Case Study
  - Building ADF applications on Siebel backend
ORACLE FUSION MIDDLEWARE

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

Development Tools
- Unified SOA Development Tool & Framework

Enterprise Management
- Provisioning, Diagnostics, Tuning, Configuration Management

Identity Management
- Provisioning, Access Management, Federation, Audit, Directory
JDeveloper
Single, Integrated, Standards-based Development Tool
Visual and Declarative

- WYSIWYG UI design
- Flow diagrams
- Modelers
- Visual XML Editors
- Process Flow
Choice of Development Styles

Visual

Dialog

Code
Enterprise IDE

- Java EE
- Web Services
- BPEL & ESB
- BAM
- WebCenter / Portlets
- Database
- XML

JDeveloper
Full Lifecycle Support

Design

Versioning

Code

Debug And Test

Analyze

Deploy

Tune

Versioning
Oracle Application Development Framework
Oracle Application Development Framework

- End to End Java EE Framework
- Increase productivity
- Improve ease-of-use
- Promote service oriented development
- Standards-based
Application Development Framework
Visual Application Assembly

- Device & Browser Adaptation
- Ajax
- Flash
- Mobile
- Web 2.0
- Page Flow
- Service Binding
Oracle ADF
An Enterprise Java Framework

• Add value and simplify Java EE
• Provides solutions for:
  • Binding
  • UI components and framework
  • Controller
  • Declarative and proficient business services
  • Visual and declarative development
ADF Faces Rich Client Components

- 100+ AJAX enabled JavaServer Faces components
- Data visualization components (Graphs and Maps)
- Drag-and-drop framework
- Dialog and popup framework
- Navigation menu framework
- Partial page rendering
- Active data framework
- Advanced data streaming
- Complete JavaScript API
Java EE Applications

Desktop Client
- Swing
- Struts

Web / Wireless
- JSP
- JSF
- JSF

View

Controller

Model
- Business
- Services

Data Source
- EJB/JPA
- Java Classes
- Web Services

Relational Data
XML Data
Legacy Data
Packaged Apps
Oracle ADF Architecture

View
- ADF Swing
- JSP
- JSF/ADF Faces

Controller
- Struts
- JSF

Model (JSR 227)
- ADF Model

Business Services
- EJB/Toplink
- ADF Business Components
- Java Classes
- Web Services
- Portlets

Data Source
- Relational Data
- XML Data
- Legacy Data
- Packaged Apps
Oracle ADF Architecture

Rich Client
- ADF Swing
- JSP
- JSF/ADF Faces
- Struts
- JSF

Web / Wireless
- ADF Model
- EJB/Toplink
- ADF Business Components
- Java Classes
- Web Services
- Portlets

View

Controller
- Model
  (JSR 227)

Business Services

Data Source
- Relational Data
- XML Data
- Legacy Data
- Packaged Apps
Oracle Fusion Architecture

View | Business Logic | Data

WebCenter

User Interface
ADF Faces components

Business Services
JSR-227 Data Binding
Web Services

Oracle Fusion Architecture

DB Schema

Oracle Fusion Architecture

Oracle Fusion Architecture

Oracle Fusion Architecture

Monitoring | Policy evaluation | Orchestration | Human interaction
Project Orion Case Study
Simplified Support

Customer Portal

Enhanced Oracle MetaLink 3

Oracle Customer Support

Siebel Call Center 8.0

My Oracle Support
Classic MetaLink

Customer Connection

Hyperion e-Support

Siebel SupportWeb

eBiz 7.8

Siebel Call Center

Customer1

ITS
Software Architecture

Metalink3 Portal Customers

ADF Faces

Backig Beans / Managed Beans

ADF Model

ADFM for Table components

Session Beans

JPA Entity Beans

EJB3

Web Services Proxy (JAX -RPC)

Web Services Handlers – Token, NoSession, Logout

Portal Database

Call Center WebServices

Orion Shared Services

WebServices exposed from Portal Core

Orion Internal Portal
Metalink3 Software Metrics

- No Of Files: 5607
  - Java Files: 4479
  - JSPX files: 291
- Lines of Code: 841,292 (~850K)
  - Java code: 461,823
  - JSPX code: 42,474
- No Of Web Services: 44 + Proxies for all WS

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Product Stack

- ADF 10.1.3.1
  - Used to develop MetaLink 3 Portal & KM/SURe Web Services
- SOA Suite 10.1.3.1
  - Application Server component used for Orion Fusion Mid-Tiers
  - Web Services Manager used for Web Services Security against OIDs
  - BPEL is used for DTI Interface between eBiz and Call Center
- SES 10.1.8.2
  - Orion KM uses for searching SURe Knowledge data via web services and custom identity plug-in
- ODI 10.1.3.2
  - Oracle Data Integrator is used for eBiz to SURe/BugRep integrations
- OViD 10.1.4.0.1
  - Oracle Virtual Directory is used for APS interface to corporate OID servers
- OID/SSO 10.1.4.0.1
  - Existing Corporate LDAP and SSO servers integrated for authentication & authorization
- Oracle 10.2.0.3.0 64 bit RDBMS
  - Portal, OIF, ODI & Siebel databases
- Siebel 8.0
  - Orion Call Center
  - Orion Database (10g)
  - EAI/Custom App Object Manager for web services
Orion Development Framework (ODF)

ODF is the infrastructure for Orion portal development.

ODF = ADF Technology (JDeveloper, Model View Controller, Enterprise Java Beans) +
    Project, Application & Database Structure (Standards, Source Control) +
    Orion Information Framework Security (Single Sign On,
        Web Services Manager) +
    Web Services Layer (Interface to Siebel 8.0 Web Services)

Provides the ADF baseline framework and procedures with coding examples to enable rapid development of Orion portal applications.
ODF Features

- Dynamic Menus
  - Table driven menu for extensibility
- Admin controlled user interface text
  - Table driven Multi-Lingual text capability
  - No downtime to update screen text.
- Context based help pages
- Consistent look and feel across web pages
- Synchronization of changes across multiple JVMs
- Pagination model within page and list items
- Dynamic Web Services end point changes - driven through site parameters
- Configurable Home Page
  - Dynamic addition of sub-tabs
  - Personalized based on user’s preference
- New UI on top of SES Web Services
- Caching mechanism for frequently used data - Products / Templates
- Role based access control to features - OID managed users and roles
- Customized Exception Handling
Internal portal prototype on ADF 11g
More Information: FMW Best Practice Center for Siebel

http://www.oracle.com/technology/tech/fmw4apps/siebel

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