Integration Architecture for Oracle E-Business Suite: Technical Insight

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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.
Presentation Agenda

• Key Integration Challenges
• Business Integration Architecture
• Oracle E-Business Suite Integrated SOA Gateway
• Oracle E-Business Suite Adapter
• Business Use Cases
• Roadmap
• Q & A
Key Integration Challenges

- Source of Truth
- Custom Interfaces
- Security Concerns
- Monitor & Manage
- Process Monitoring
- Complexity
- Provide Services
- Consume Services
- Fail-safe Integration
- Process Orchestration
- Event Driven Integration
- Flexible Architecture
Oracle E-Business Suite

Business Integration Technologies

- Web Services
- Integrated SOA Gateway
- Integration Repository
- PL/SQL APIs
- Interface Tables
- Concurrent Programs
- BSO
- Java APIs
- Interface Views
- XML Gateway
- eCommerce Gateway
- Business Event System
- Oracle Workflow
- J2EE Application Server
  (Oracle AS)
Oracle Application Integration Architecture
Pre-built integrations

Oracle Application Integration Architecture

Best Practice Processes
- Order to Cash
- Procure to Pay
- Exit to Hire
- Concept to Cash
- And much more...

Process Integration Packs
- Opportunity to Quote
- Order to Cash
- Design to Release
- Banking
- Trade Promotion Mgmt
- Comms Order to Bill
- More Planned...

Foundation Packs
- SOA Reference Architecture & Programming Model
- Reference Process Models
  - Enterprise Business Services

SOA Governance

Industry Leading

ORACLE FUSION MIDDLEWARE
SOA Enablement Of Oracle E-Business Suite
For Business Integration Architectures
Oracle E-Business Suite
Integrated SOA Gateway
Oracle E-Business Suite Integrated SOA Gateway

The above reflects Oracle's current development plans which are subject to change at any time.
Business Benefits
Oracle E-Business Suite Integrated SOA Gateway

**Flexible Integration Architecture**
- Provide out-of-box Web services
- Consume Web services
- Complements with AIA
- Path to Fusion

**Lower Total Cost Of Ownership**
- Maximize investment of existing IT assets
- Leverage interoperability with standards based integration

**Gain Visibility Into Integration**
- Monitor integration transactions
- Comprehensive details about integration transactions

**More Interfaces**
- Business Events’ – “Subscription Model”
- Composite services – simplify complexity
- More Services
Integration Repository
Integration Repository
Your Snapshot with Customization

- Catalog of all annotated public integration interfaces
- Search / Browse by Product Family / Interface Type
- Part of EBS Integrated SOA Gateway – R12.1.1

Oracle Seeded Interfaces
(Custom Interfaces
(Written by Partners / Customers)

Oracle Seeded Composite Interfaces
(Custom Composite Interfaces
(Written by Partners / Customers)
Integration Repository
Publishing Custom Interfaces

Annotate Interfaces
- PL/SQL API
- Concurrent Program
- XML Message
- Business Service Object
- Business Event

Stand Alone Parser
Reads annotated files and generates Integration Repository Loader Files

Loader File (ildt)

FNDLOAD Uploads Loader File to Integration Repository

Integration Repository

Custom interfaces in E-Business Suite

HR
Projects
Finance
Order
Procure
Planning
Sales
Shipping
DEMONSTRATION

Integration Repository

Customization of Integration Interfaces
Set Up & Configure

- Download and Install Parser Libraries
- Configure the Libraries
- Compile the patch installation
CREATE or REPLACE PACKAGE Custom_OE_Order_PUB AS

PROCEDURE Process_Order
(p_org_id
, p_operating_unit
, p_api_version_number
, p_init_msg_list
, p_return_values
, p_action_commit
, x_return_status
, x_msg_count
, x_msg_data
, p_header_rec
, p_old_header_rec
, p_header_val_rec
, p_old_header_val_rec
, p_Header_Adj_tbl
, p_old_Header_Adj_tbl
, p_Header_Adj_val_tbl
, p_old_Header_Adj_val_tbl
, p_Header_price_Att_tbl
  IN NUMBER := NULL
  IN VARCHAR2 := NULL
  IN NUMBER
  IN VARCHAR2 := FND_API.G_FALSE
  IN VARCHAR2 := FND_API.G_FALSE
  IN VARCHAR2 := FND_API.G_FALSE
  OUT NOCOPY VARCHAR2
  OUT NOCOPY NUMBER
  OUT NOCOPY VARCHAR2
  IN Header_Rec_Type :=
  G_MISS_HEADER_REC
  IN Header_Rec_Type :=
  G_MISS_HEADER_REC
  IN Header_Price_Att_Tbl_Type :=

SET VERIFY OFF
WHENEVER OSERROR EXIT FAILURE ROLLBACK;
WHENEVER SQLERROR EXIT FAILURE ROLLBACK;
CREATE or REPLACE PACKAGE Custom_OE_Order_PUB AS
/*#
 * <Put your long package description here
 * it can span multiple lines>
 * @rep:scope <scope>
 * @rep:product <product or pseudoproduct short code>
 * @rep:lifecycle <lifecycle>
 * @rep:displayname <display name>
 * @rep:compatibility <compatibility code>
 * @rep:businessevent <Business event name>
 * @rep:category BUSINESS_ENTITY <entity name>
 */
PROCEDURE Process_Order
(    p_org_id         IN NUMBER      := NULL,
    p_operating_unit IN VARCHAR2  := NULL,
    p_api_version_number IN NUMBER,
    p_init_msg_list  IN VARCHAR2  := NULL,
    p_return_values  IN VARCHAR2  := NULL,
    p_action_commit  IN VARCHAR2  := NULL,
    x_return_status  OUT NUMBER,
    x_msg_count      OUT NUMBER,
    x_msg_data       OUT NUMBER,
    p_header_rec     IN PFRAME,
    p_old_header_rec IN PFRAME,
    p_header_val_rec IN PFRAME
);
CREATE or REPLACE PACKAGE Custom_OF_Order_PUB AS

/*#
* This is a custom API which allows users to perform process order on sales orders in the Order Management system.
* @rep:scope public
* @rep:product ONT
* @rep:lifecycle active
* @rep:displayname Process Order API
* @rep:category BUSINESS_ENTITY ONT_SALES_ORDER
*/

PROCEDURE Process_Order
  (p_org_id IN NUMBER := NULL,
   p_operating_unit IN VARCHAR2 := NULL,
   p_api_version_number IN NUMBER,
   p_init_msg_list IN VARCHAR2 := FND_API.G_FALSE,
   p_return_values IN OUT NUMBER,
   p_action_commit IN OUT VARCHAR2 := FND_API.G_FALSE,
   x_return_status IN OUT VARCHAR2,
   x_msg_count IN OUT VARCHAR2,
   x_msg_data IN OUT VARCHAR2,
   p_header_rec IN Header_Rec,
   p_old_header_rec IN Header_Rec,
   p_header_val_rec IN Header_Rec,
   p_old_header_val_rec IN Header_Rec,
   p_Header_Adj_tbl IN Header_Adj_tbl)

end Custom_OF_Order_PUB;
SET VERIFY OFF
WHENEVER OSERROR EXIT FAILURE ROLLBACK;
WHENEVER SQLERROR EXIT FAILURE ROLLBACK;

CREATE or REPLACE PACKAGE Custom_OE_Order_PUB AS

/**
 * This is a custom API which allows users to perform process order on sales orders in the Order Management system.
 * @rep:scope public
 * @rep:product ONT
 * @rep:lifecycle active
 * @rep:displayname Process Order API
 * @rep:category BUSINESS_ENTITY ONT_SALES_ORDER
 */

PROCEDURE Process_Order (
    p_org_id IN NUMBER,
    p_operating_unit IN VARCHAR2,
    p_api_version_number IN NUMBER,
    p_init_msg_list IN VARCHAR2,
    p_return_values IN VARCHAR2,
    p_action_commit IN VARCHAR2
)
/*

Use this procedure to process Sales Order. Process Order supports action requests that allow users to execute actions such as booking, hold application and removal, automatic attachments, fulfillment set application and removal, match and reserve for Configured items, get ship method and freight rates (both individually and together), and the linking and delinking of Configured items.

- @param p_org_id Input OU Organization Id
- @param p_operating_unit Input Operating Unit Name
- @param p_api_version_number API version used to check call compatibility
- @param p_init_msg_list Boolean which determines whether internal message tables should be initialized
- @param p_return_values Boolean which determines whether ids should be converted to values for population
- @param p_action_commit Not used
- @param x_return_status Return status of API call
- @param x_msg_count Number of stored processing messages
- @param x_msg_data Processing message data
- @param p_header_rec Input record structure containing current header-level ID information for an order
- @param p_old_header_rec Input record structure containing old header-level ID information for an order
- @param p_header_val_rec Input record structure containing current header-level value information for an order
- @param p_old_header_val_rec Input record structure containing old header-level value information for an order
- @param p_Header_Adj_tbl Input table containing current header-level ID information for price adjustment rules
- @param p_old_Header_Adj_tbl Input table containing old header-level ID information for price adjustment rules
- @param p(old/Header_Adj_val_tbl Input table containing current header-level value information for price adjustment rules
- @param p(old/Header_price_Att_tbl Input table containing current header-level ID information for price adjustment rules
- @param p_old/Header_Price_Att_tbl Input table containing old header-level ID information for price adjustment rules
- @param p/Header_Adj_Assoc_tbl Input table containing association between sales configuration and sales configuration
- @param p_old/Header_Adj_Assoc_tbl Input table containing association between sales configuration and sales configuration
- @param p/Header_Scredit_tbl Input table containing credit code for order
- @param p_old/Header_Scredit_tbl Input table containing credit code for order
- @param p/Header_Scredit_val_tbl Input table containing credit code value for order
- @param p_old/Header_Scredit_val_tbl Input table containing credit code value for order

Custom PL/SQL API Annotation

- Annotation Values for the Procedure
Run the Integration Repository Parser

Custom PL/SQL API Annotation

- Run the Integration Repository Parser
Custom PL/SQL API Annotation

- Generate the ILDT files
Run FNDLOAD to load the ILDT files into the Integration Repository.
The Integration Repository is an integral part of Oracle E-Business Suite. It provides a complete catalog of Oracle E-Business Suite's Business Service interfaces. The tool lets users easily discover and deploy the appropriate business service interface from the catalog for integration with any system, application, or business partner.

**Custom PL/SQL API Annotation**
- Navigate to Integration Repository
- Login into Oracle E-Business Suite
- Oracle E-Business Suite Home Page
- Integrated SOA Gateway
- Integration Repository
Search by Interface Source = Custom and Interface Type – PL/SQL

Custom PL/SQL API Annotation
Custom PL/SQL API is available in the Integration Repository.
Custom PL/SQL API details for the Package level

Internal Name: CUSTOM_OE_ORDER_PUB
Type: PL/SQL
Product: Order Management
Status: Active
Business Entity: Sales Order

Scope: Public
Interface Source: Custom

Full Description:
This is a custom API which allows users to perform process order on sales orders in the Order Management system.

Source Information:
Source File: patch/115/sql/Custon_OEXPORDS.pls
Source Version: 12.0
Source Product: OE

Procedures and Functions:
- Custom PL/SQL API details for the Package level

Select Object and Create Grant
Select All | Select None
Select Details: Name ▲ | Internal Name | Status | Description
- Show Maintain Sales Order: PROCESS_ORDER | Active | Use this procedure to process...
Custom PL/SQL API details with the parameters and procedures

Internal Name: PROCESS_ORDER
Interface: CUSTOM_OE_ORDER_PUB
Type: PL/SQL
Business Entity: Sales Order

Full Description

Use this procedure to process Sales Order. Process Order supports action requests that allow users to execute a variety of actions such as booking, hold application and removal, automatic attachments, fulfillment set application and removal, match and reserve for Configured items, get ship method and freight rates (both individually and together), and the linking and delinking of Configured items.

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Direction</th>
<th>Precision/Size</th>
<th>Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P_ORG_ID</td>
<td>NUMBER</td>
<td>In</td>
<td></td>
<td>NULL</td>
<td>Input OU Organization Id</td>
</tr>
<tr>
<td>P_OPERATING_UNIT</td>
<td>VARCHAR2</td>
<td>In</td>
<td></td>
<td>NULL</td>
<td>Input Operating Unit Name</td>
</tr>
<tr>
<td>P_API_VERSION_NUMBER</td>
<td>NUMBER</td>
<td>In</td>
<td></td>
<td></td>
<td>API version used to check call compatibility</td>
</tr>
<tr>
<td>P_INIT_MSG_LIST</td>
<td>VARCHAR2</td>
<td>In</td>
<td></td>
<td>FND_API.G_FALSE</td>
<td>Boolean which determines whether internal message tables should be initialized</td>
</tr>
<tr>
<td>P_RETURN_VALUES</td>
<td>VARCHAR2</td>
<td>In</td>
<td></td>
<td>FND_API.G_FALSE</td>
<td>Boolean which determines whether ids should be converted to values for population in the output value parameters</td>
</tr>
<tr>
<td>P_ACTION_COMMIT</td>
<td>VARCHAR2</td>
<td>In</td>
<td></td>
<td>FND_API.G_FALSE</td>
<td>Not used</td>
</tr>
</tbody>
</table>
SOA Provider
Provide Web services
SOA Provider
Generate, Deploy Service

1. Generate WSDL
2. Deploy Service
3. Invoke Service
Business Events
Published in Integration Repository

• Now published in the Integration Repository
• Non-intrusive integration capability
• “Subscription Model”
• Underlying WF_BPEL_Q queue

Integration Repository ->

Business Event Details : Event For XML Integration Collaboration History

<table>
<thead>
<tr>
<th>Internal Name</th>
<th>oracle.apps.ant.oi.xml_int.status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Business Event</td>
</tr>
<tr>
<td>Product</td>
<td>Order Management</td>
</tr>
<tr>
<td>Status</td>
<td>Active</td>
</tr>
<tr>
<td>Business Entity</td>
<td>Sales Order</td>
</tr>
</tbody>
</table>

Scope Interface Source
Public Oracle

Full Description
Oracle Order Management uses this event to send confirmations of XML/EDI transactions. However, it can also be used to provide subscribers with a way to perform custom-defined processing at desired integration points. Currently, there are two ways this event can be configured: 1. By defining a processing constraint with User Action of Raise Integration Event. 2. By inserting the workflow sub-process ‘Raise Show Sales Order Event Sub Process’ from the item type ‘CM Show Sales Order (OESO)’ in an Order Header (CDEH) workflow process. This method can be used, for example, to raise the event when an order is booked. More information about this event can be found in the ‘Oracle Order Management Open Interfaces, API, and Electronic Messaging Guide Release 12 - Chapter 6’.

Source Information
Source File patch/115/xml/us/oeevtname.wfx
Composite Services – BPEL
Published Integration Repository

Coarse-grained abstracted service within which multiple finer-grained services are bonded together to execute in a series

• Simplifies business services implementation requiring multiple APIs
• Provides flexibility in business integration architecture
• Catalog of BPEL composite service
SOA Monitor
Insight into SOA Provider transactions

- Provides an interface to audit / monitor integrations
- Provides easy to configure built-in administrative tool
  - Full Details Captured – Including Request & Response Payloads
  - On / Off Switch: Control from GUI
  - Configurable: In-Memory Cache Size, Flush Interval
  - Purge Stale Data

![SOA Monitor Table](image)
SOA Monitor

How does it work

**PROCESS**

- SOA Provider receives SOAP Request
- SOA Provider processes SOAP Request
- SOA Provider sends SOAP Response
- SOA Monitor captures SOAP Request details
- SOA Monitor captures SOAP Response details
- SOA Monitor captures error & exception details
Integration Interfaces and Services

**Web Service Enabled**
- PL/SQL APIs
  - Concurrent Programs
  - XML Messages (Inbound)
  - Business Service Objects
  - Java APIs (Doc Style)

**Subscription Model**
- Business Events
- XML Messages (Outbound)

**Composite Services**
- BPEL Composite Services (Downloadable)

**Just Interfaces**
- Open Interface Tables
- Open Interface Views
- eCommerce Gateway Interface
- Java APIs
Service Invocation Framework
Service Invocation Framework
Invoke And Consume Web services

- PL / SQL
- Workflow
- Forms
- OA Framework

Invoke And Consume Service

Invoke Web service

Web Service Request

Web Service Response

Optional Transform-In & Transform-Out

External Web services

Fire Wall

Reservation Service

Packaged Applications Web services

BPEL Process as Service

Oracle
Service Invocation Framework

2 Create Invoker Subscription

1 Create / Use Invoker Event

2.1 Enter WSDL

2.2 Select Service

2.3 Select Port

2.4 Select Operation

2.5 Enter Subscription Parameters

3 Test Service Invocation
Service Invocation Framework

Key Features

- Supports Synchronous Request-Response
- Supports One-way/Notification
- SOAP Request XSL Transformation (Outbound)
- SOAP Response XSL Transformation (Inbound)
- Supports custom input headers
- Callback to EBS using BES
- Supports WS-Security
- Manage errors using BES Error Handler process
- Testing Framework
Service Invocation Framework
Demo Use Case Steps

- Deploy the “Create SDR” BPEL PM Process
- Provide XSL Transform for Request & Response
- Create / Use Invoker Event & Subscription

- Deploy the Workflow process for Response processing
- Create Callback Event & Subscription
- Test Service Invocation & verify the WS Response / Notification

For Sync Request / Response
Demonstration
Service Invocation Framework
EBS – 2 – BPEL
SOA Principles
Oracle E-Business Suite Adapter

<table>
<thead>
<tr>
<th>SOA Concept</th>
<th>Oracle E-Business Suite</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Broker</strong>: Describe Service’s Location</td>
<td>Integration Repository</td>
</tr>
<tr>
<td><strong>Service Provider</strong>: An agent to implement a service</td>
<td>Oracle E-Business Suite Adapter</td>
</tr>
</tbody>
</table>

Integration Repository

Service Consumer

EBS Adapter

Client

Service

Find

Register
Service Oriented Architecture
Oracle E-Business Suite Adapter – Life Cycle

Adapter Framework
Integrate:Technology

Integration Repository
Integrate: Content

BPEL PM / ESB
Orchestrate / Event

Oracle EBS Security
Access Control

JDeveloper
Develop

Enterprise Manager
Monitor & Manage
Oracle E-Business Suite Adapter
Integration Solution Overview

- Leverages Integration Repository
- Secured and Trusted Connection
- Functional Security Enabled
- Application Context Ready
- Transaction Support
- Customization Support
Leverage Integration Repository

Oracle E-Business Suite Adapter

Packaged Data File

Cached Data File

Live Connection

XML
Secured and Trusted Connection

- FMW: Trusted Client
- No APPS Schema Password
- FND Username / Password
- Connection Managed by EM
Function Security
Authorization Mechanism
Application Context Ready

Retains Apps Context across multiple invokes

Apps Context
Username="SYSADMIN"
Responsibility="System Administrator"
Org ID= "207"

Apps Adapter
PL/SQL Invoke1

Apps Adapter
PL/SQL Invoke2
Global Transaction

Global Transaction implements Two Phase Commit

Failure causes Rollback

Client Partner Link

Receive

invoke1

invoke2

Receive

Order

Adapter Partner Link1

Adapter Partner Link2

Dehydration Store

Oracle BPEL PM
Customization Support

- Custom PL/SQL APIs
- Custom Business Events
- Custom XML Gateway
## Business Benefits

**Oracle E-Business Suite Adapter**

### Source Of Truth
- Leveraging Integration Repository
- Supports custom interfaces

### Secured Integration Solutions
- Authentication (Trusted Connection)
- Authorization (Execution Privileges)

### Failsafe Integration Processes
- Transaction Control
- Application Context

### Faster Design-2-Deploy
- Wizard-based intuitive design time experience
- Oracle E-Business Suite version aware design time

---

**Agile and Flexible Integration Architecture**
Oracle E-Business Suite Adapter
Integration Streams
Business Use Cases
Who’s Deploying Integration Solutions

Public | Private | Government

Healthcare | Transportation | Education

High Tech | InfoTech | Manufacturing | Telecom

Federal | State | Local | Defence

Drivers: SOA | Agility | Scalability | Visibility
Oracle E-Business Suite Integration

Business Use Cases

- Order to Invoice Process
- Procure to Pay Process
- Payroll Processing Process
- Hire to Retire Process
- After Sales Service Process
- Sub Contracting Process
Create Supplier Ship & Debit Request
Oracle E-Business Suite Integrated SOA Gateway Use Case

Inception
Integration Administrator
- Identify / Locate API for integration
- Generate WSDL for Ship & Debit API
- Deploy Service for Ship & Debit API

Design
Integration Developer
- Locate WSDL URL for SDR: Integration Repository
- Set SOA Header for SD Service SOAP request
- Read SD input payload from file
- Set SD Request Number
- Invoke EBS API as WS
- Get SD Request Header ID
Create and deploy BPEL process

Execution
Integration Administrator
- Initiate BPEL process from BPEL Console
- View response in BPEL Console
Trade Management User
- Verify created SD request in Oracle Trade Management

Identify / Locate API for integration
Generate WSDL for Ship & Debit API
Deploy Service for Ship & Debit API
Locate WSDL URL for SDR: Integration Repository
Set SOA Header for SD Service SOAP request
Read SD input payload from file
Set SD Request Number
Invoke EBS API as WS
Get SD Request Header ID
Initiate BPEL process from BPEL Console
View response in BPEL Console
Verify created SD request in Oracle Trade Management
Order Entry / PO Acknowledgement
Oracle E-Business Suite Use Case

Oracle, Non-Oracle and Legacy Systems – PO Inbound
Mapping / Translation
Interface Tables For SO Header & Lines
Import Programs Sales Orders
EBS Apps DB

<xml>
  abc
</xml>

PO Acknowledge xml file
PO Acknowledge Outbound
Verify and Book Sales Orders
Interoperability Leverage

- Oracle Fusion Middleware
- Oracle Application Integration Architecture
- Oracle E-Business Suite
- Peoplesoft Enterprise
- Oracle Siebel
- Apache Axis
- .NET WS Client
- 3rd Party Standard WS Client
# Oracle EBS ISG vis-à-vis Adapter

## Positioning

<table>
<thead>
<tr>
<th>Integrated SOA Gateway</th>
<th>E-Business Suite Adapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOAP web service</td>
<td>Standard JCA service</td>
</tr>
<tr>
<td>Provided out-of-box from EBS</td>
<td>Provided from SOA Suite in mid-tier</td>
</tr>
<tr>
<td>Provides Interoperability leverage from any standard web service client</td>
<td>Provided via Oracle BPEL Process Manager or Enterprise Service Bus</td>
</tr>
<tr>
<td>Multi service transaction failures need to be handled explicitly</td>
<td>Multi service transaction failures are rolled back implicitly via transaction control of JCA framework</td>
</tr>
<tr>
<td>Consumption of external web services for lightweight integration via native service invocation framework</td>
<td>Consumption of external web services is via Oracle BPEL Process Manager or Enterprise Service Bus</td>
</tr>
<tr>
<td>Integration transactions are monitored via SOA monitor</td>
<td>Integration transactions are monitored via BPEL PM, ESB consoles</td>
</tr>
</tbody>
</table>
Next Steps
Out-of-the-box Web services
Roadmap

- SOA Governance Solutions
- Advanced Customization
- Advanced Exception Handling And Diagnostics
- SAML Token Support
- Java APIs (Document Style)
Out-of-the-box Web services

SOA Governance

Oracle FMW SOA Governance Suite

Enterprise Manager
System Monitoring
Web Services Manager
WS Policies Security
Enterprise Repository
SOA Lifecycle Governance
Registry
UDDI

S = Services
Presentation Summary
Key Takeaways

Integration Repository
- Extensible with custom
- Apps Data Source / Function Security
- SOA Monitor / Enterprise Manager
- Integrates with Oracle BAM
- Standards based / Out-of-the-box

Source of Truth
- Provide Services
- Consume Services
- Fail-safe Integration

Process Orchestration
- Event Driven Integration
- Flexible Architecture
- Transaction Control / Apps Context

Monitor & Manage
- EBS Adapter with BPEL PM / SOA Provider with BPEL PM
- EBS Adapter with EBS & OSB
- Complements AIA / Path to Fusion

Security Concerns
- SOA Provider / EBS Adapter
- Service Invocation Framework
- Transaction Control / Apps Context
- EBS Adapter with BPEL PM / SOA Provider with BPEL PM
- EBS Adapter with EBS & OSB
- Complements AIA / Path to Fusion

Availability
- EBS Adapter with BPEL PM / SOA Provider with BPEL PM
- EBS Adapter with EBS & OSB
- Complements AIA / Path to Fusion

Standards based / Out-of-the-box

Complexity
- SOA Monitor and Enterprise Manager
- Integrates with Oracle BAM
- Standards based / Out-of-the-box
Related Sessions: Integration

Wednesday (14th October, 2009)

- Integration Architecture for Oracle E-Business Suite: Technical Insight (S309526)
  Time: 10:15-11:15
  Venue: Moscone West L2 (RM 2008)

- Power Session - Oracle E-Business Suite Adapter: Technical Overview (S309530)
  Time: 13:00-13:30
  Venue: Moscone West L2 (RM 2008)

- Power Session - Out-of-the-Box Web Services with Oracle E-Business Suite (S309530)
  Time: 13:45-14:15
  Venue: Moscone West L2 (RM 2008)