

**Oracle® Application Integration Architecture 2.5:  
Business Process Guide**

Release 2.5

**Part No. E15767-01**

November 2009

## Oracle Application Integration Architecture 2.5: Business Process Guide

Part No. E15767-01

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# Chapter 1: Introduction

This document discusses the AIA Reference Process Models delivered with an Oracle Application Integration Architecture Release Vehicle. Refer to Metalink note 824633.1 titled *Oracle Application Integration Architecture 2.0.1 - 2.x: List of Delivered Reference Process Models* for a complete list of models delivered with an AIA release.

## Topics

[Chapter 2: Oracle Business Process Modeling and Analysis Overview](#)

[Chapter 3: Modeling Approach and Methodology](#)

[Chapter 4: Modeling Standards and Notation](#)

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[Chapter 6: Integration with Business Services Repository](#)

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# Chapter 2: Oracle Business Process Modeling and Analysis Overview

This section discusses:

- Our understanding of Business Process Management.
- What is the challenge?
- What is the answer?
- What is a business process?

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## Our Understanding of Business Process Management

Business Process Management (BPM) includes a set of activities that organizations perform to either optimize their business processes or adapt them to new organizational needs.

Important elements include business process modeling and analysis (BPA), orchestration (BPEL), and business activity monitoring (BAM).

This guide focuses on the BPA element, outlines Oracle's approach and methodology, and describes the business process models delivered with an Oracle Application Integration Architecture Release Vehicle.

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## What is the Challenge?

Coordinating business processes is not simple or linear as might be portrayed in the world of traditional task management.

Business is constantly changing, messy, unordered and chaotic; work activities and tasks have to be processed in parallel.

Coordination requires the spawning and asynchronous execution of nested tasks and parallel activities.

And it is not just tasks that occur in parallel, but decision-making, distributed computation and the movement of information within the company and across the value chain.

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## What is the Answer?

The best way to understand how your business is running - is to understand your processes.

The first step in doing that is to model your business processes.

Oracle has created and delivered business process models for those processes supported by Oracle Application Integration Architecture Releases. These business process models will enable you to see and understand how Oracle Application Integration Architecture provides application integration solutions for your business processes.

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## What is a Business Process?

A business process is a set of coordinated tasks and activities, involving both human and system interactions, that will lead to accomplishing a set of specific organizational goals. Characteristics of business processes include the following:

- Large, complex, long running
- Widely distributed and customized
- Dynamic
- Automated
- Both business and technical in nature
- Cross boundaries within and between businesses
- Dependent on and supportive of human intelligence and judgment
- Difficult to recognize

# Chapter 3: Modeling Approach and Methodology

This section discusses:

- Oracle's Approach to Business Process Modeling and Analysis (BPA)
- Methodology and Organization

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## Oracle's Approach to Business Process Modeling and Analysis (BPA)

We combine the business view of the business analyst with a glimpse of the technical view of the technical analyst. We use a standard modeling method and add technical artifacts to the models at the lowest level of decomposition.

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## Methodology and Organization

We use accepted standard modeling methods and notation and add Oracle-specific information on the most detailed level of the models. Following are characteristics of our models:

- Horizontal role-based swimlane workflow modeling method based on the Rummler-Brache diagramming technique.
- Lowest level is BPMN compliant
- Includes both human and system lanes

We have organized our model content using hierarchical four levels of decomposition.

- Top three levels are conceptual
- Conceptualization of SOA services can be observed on third level
- Fourth level is implementation specific
- Process integration points and AIA artifacts appear on lowest level

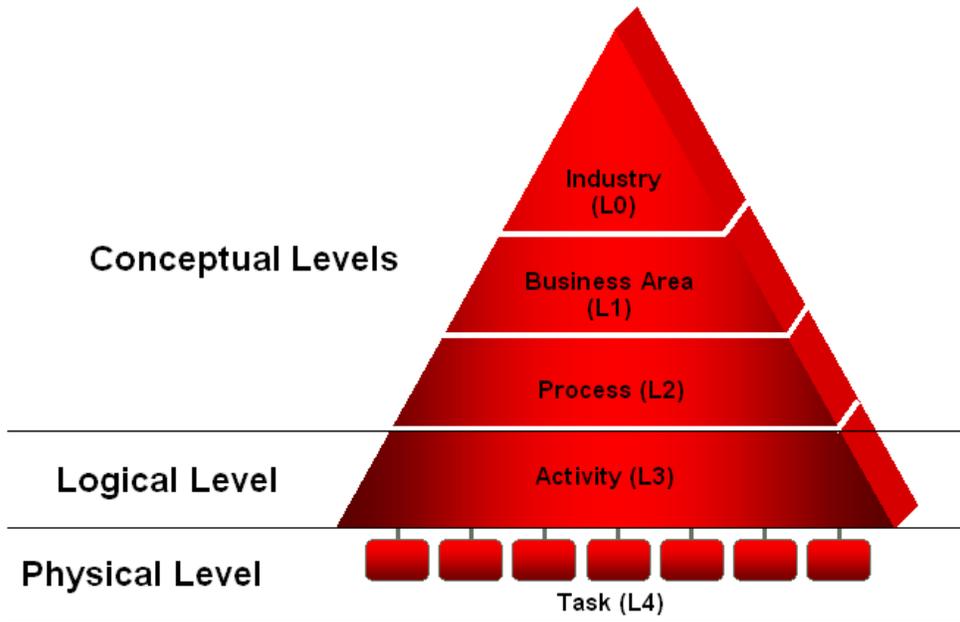


Figure 1: Hierarchical organization of model content

We have created many sets of the lowest level models that correspond to particular implementation solutions. AIA provides solutions that quilt together pieces of application functionality between two or more Oracle product families.

We have also created industry-specific variations of our models for many of the industries that Oracle supports.

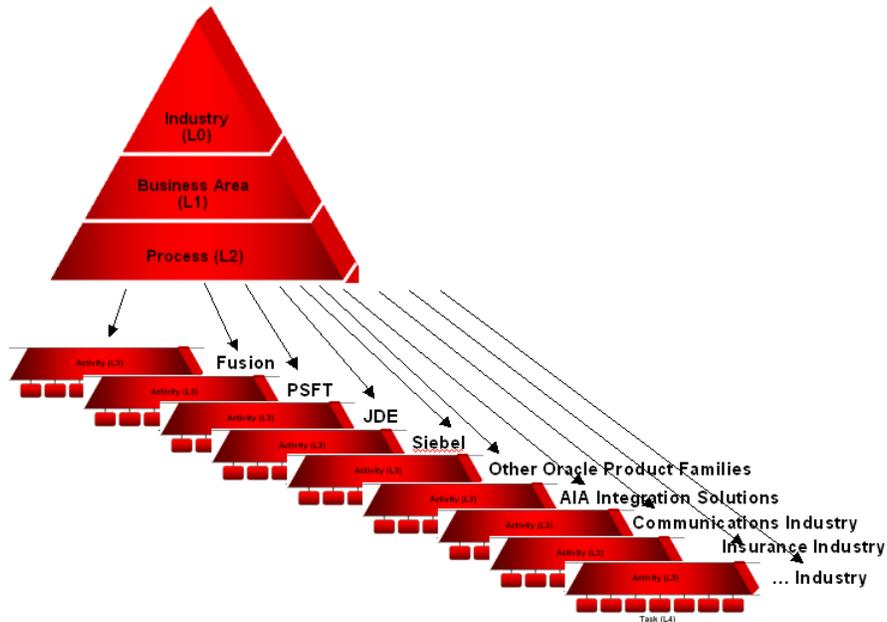


Figure 2: Multiple Sets of Implementation-Specific Models

## Model Types

We create and deliver the following types of models:

- Reference Process Models (RPMs) – Horizontal, functionally scoped business process models that depict all of the aspects of the processes supporting a particular function (Marketing, Sales, and Order Fulfillment, for example).
- Industry Reference Process Models – Industry-specific business process models that combine industry processes with relevant horizontal processes and variations of horizontal processes.
- Composite Business Flows – End-to-end processes that are comprised of parts of several functional business processes (Order to Cash, Procure to Pay, and Design to Release, for example).

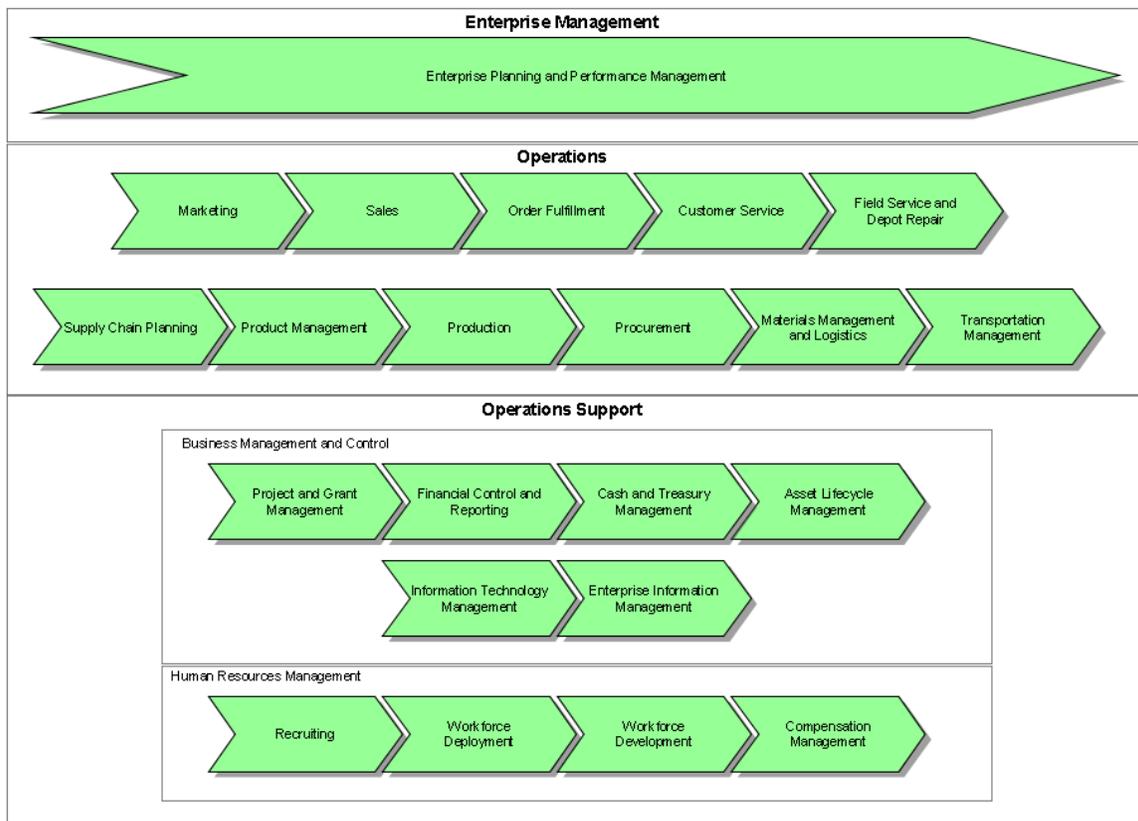


# Chapter 4: Modeling Standards and Notation

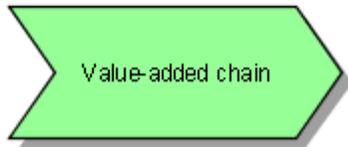
Following are examples of a model for each level as well as a list of the symbols and annotation used on each level.

## Level 0

### Sample model:

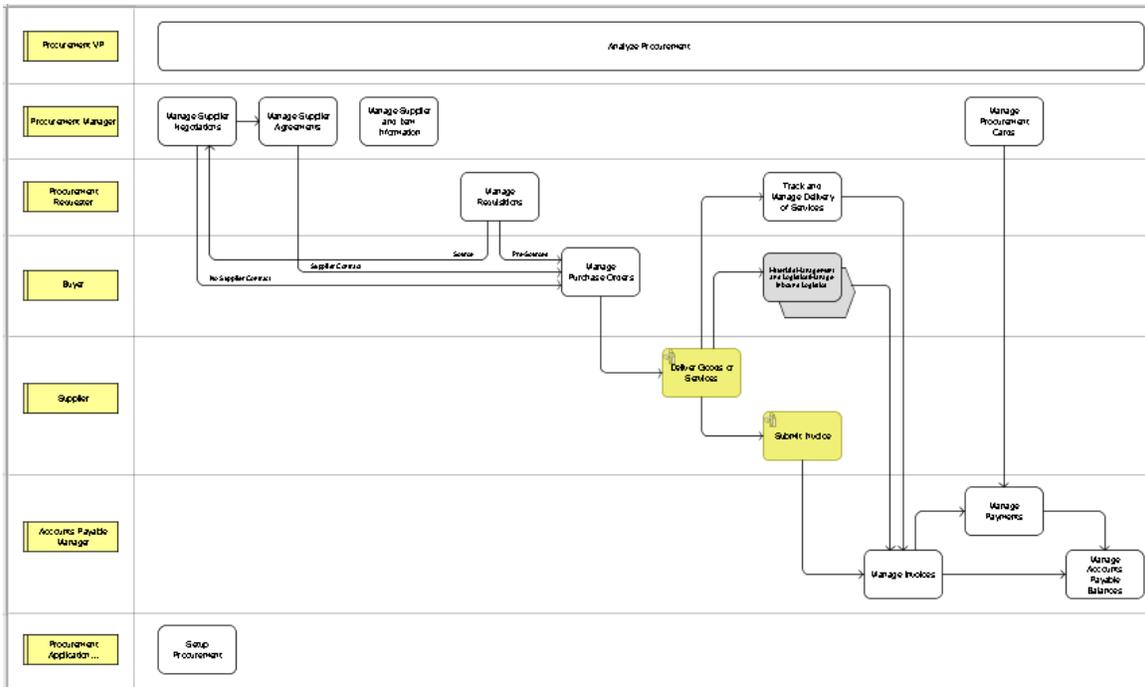


**Allowable symbols:**

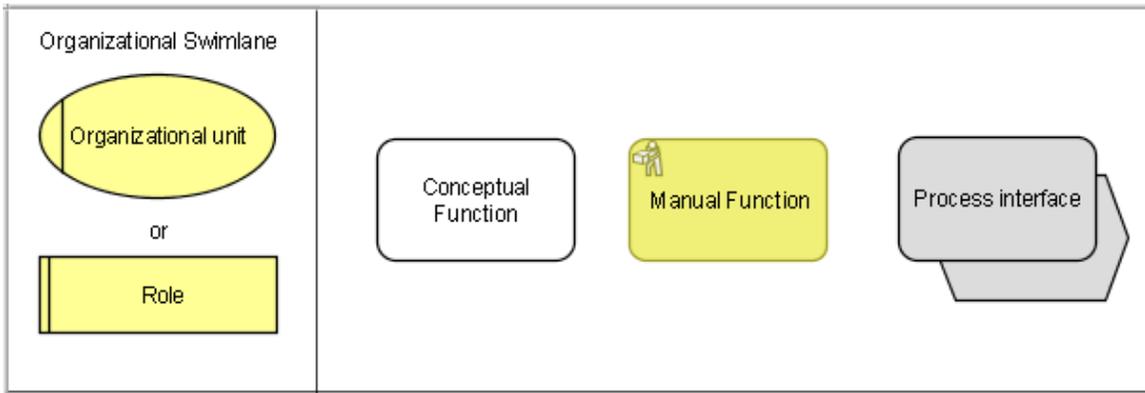


## Level 1

**Sample model:**

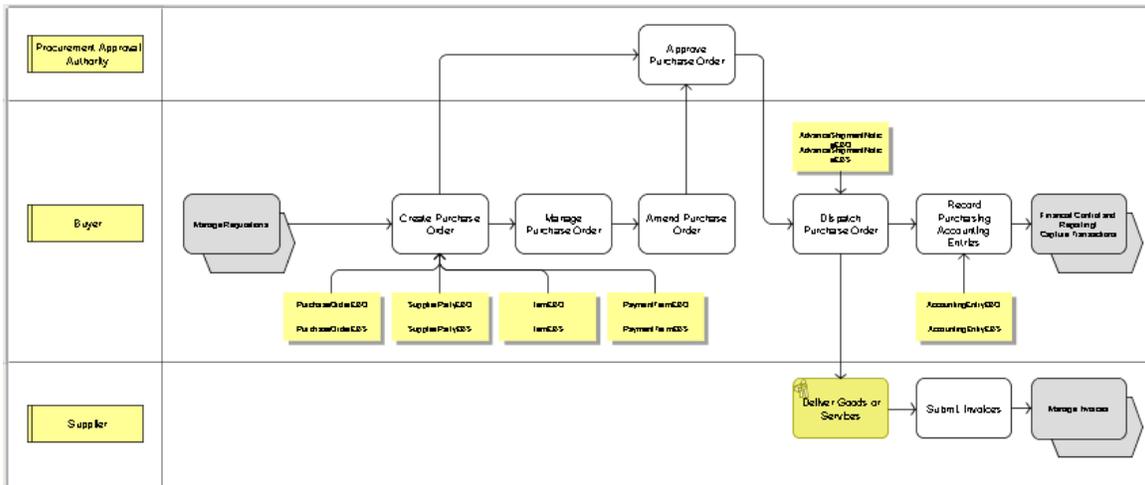


**Allowable symbols:**

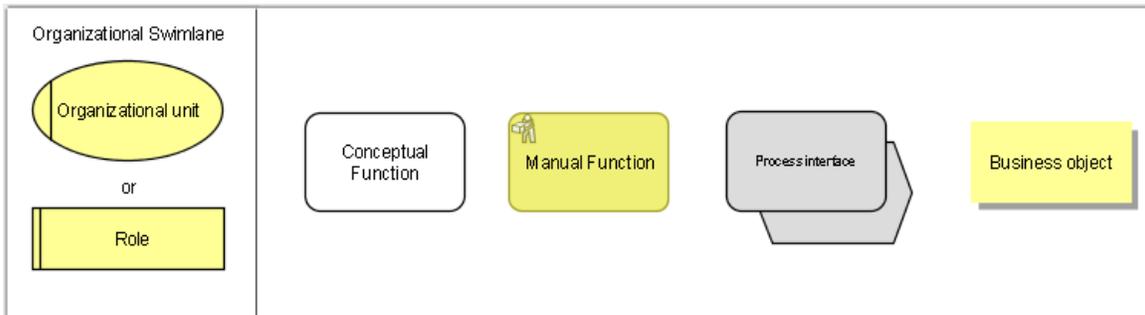


## Level 2

**Sample model:**

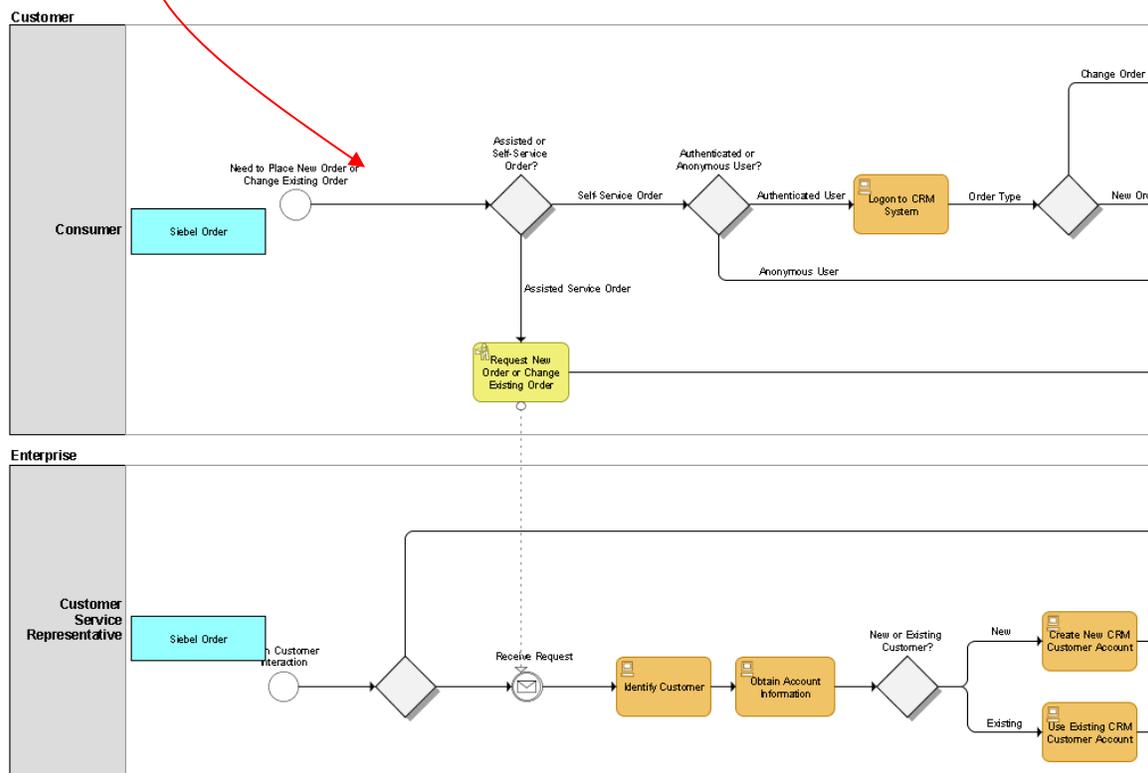
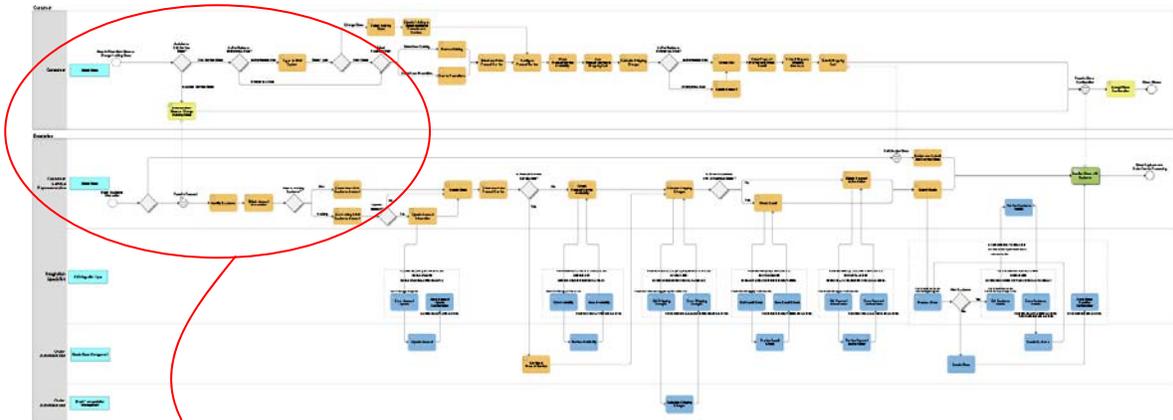


**Allowable symbols:**

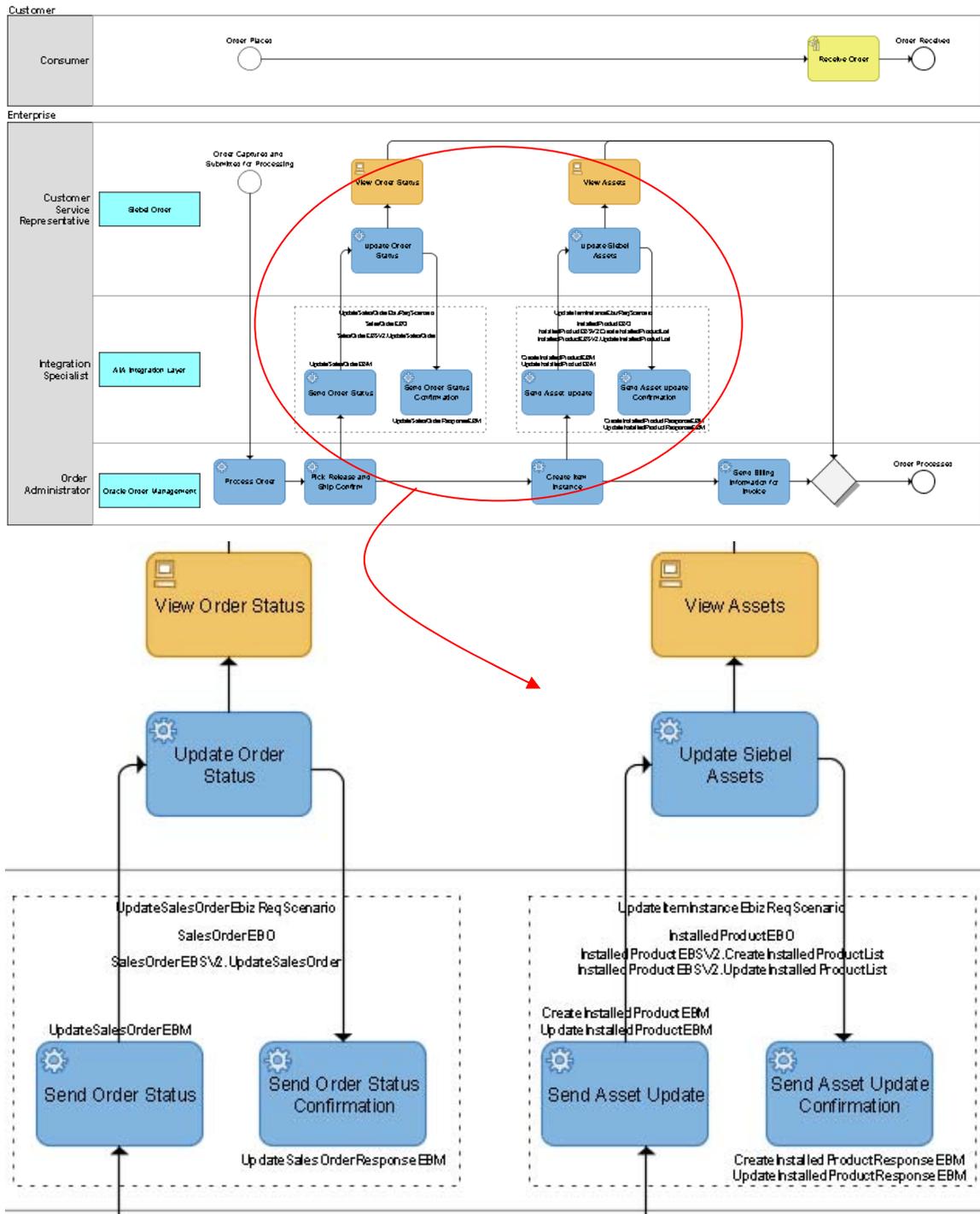


# Level 3

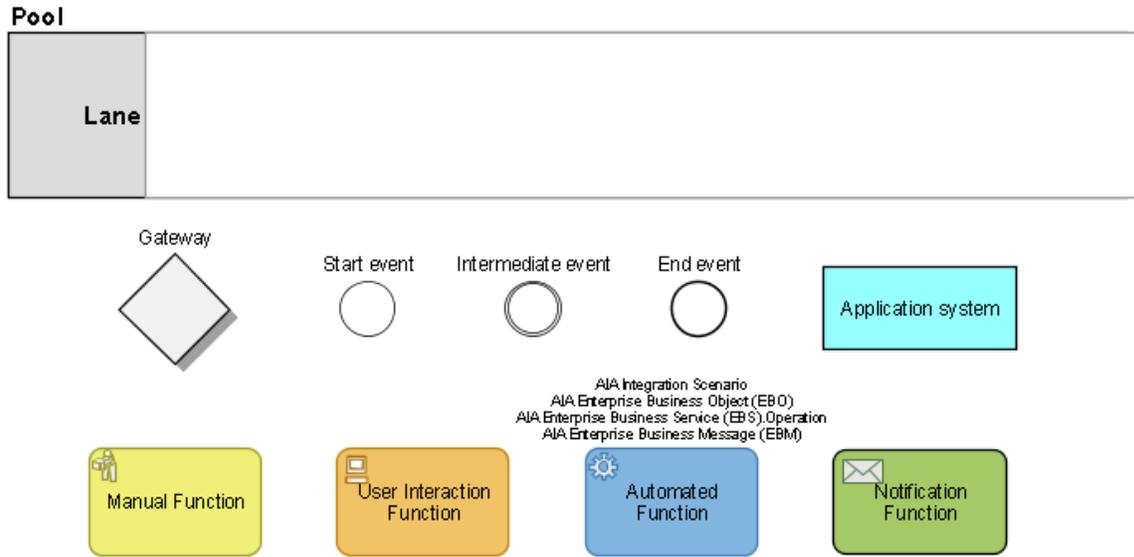
## Sample model 1:



**Sample model 2:**



**Allowable symbols:**



## Level 4

Level 4 is not a model level. It is the tasks that appear on the models at level 3; level 4 is the leaves at the bottom of the branch of the tree.

### Functional and Composite Business Process Views

Our Reference Process Models depict functionally scoped business processes.

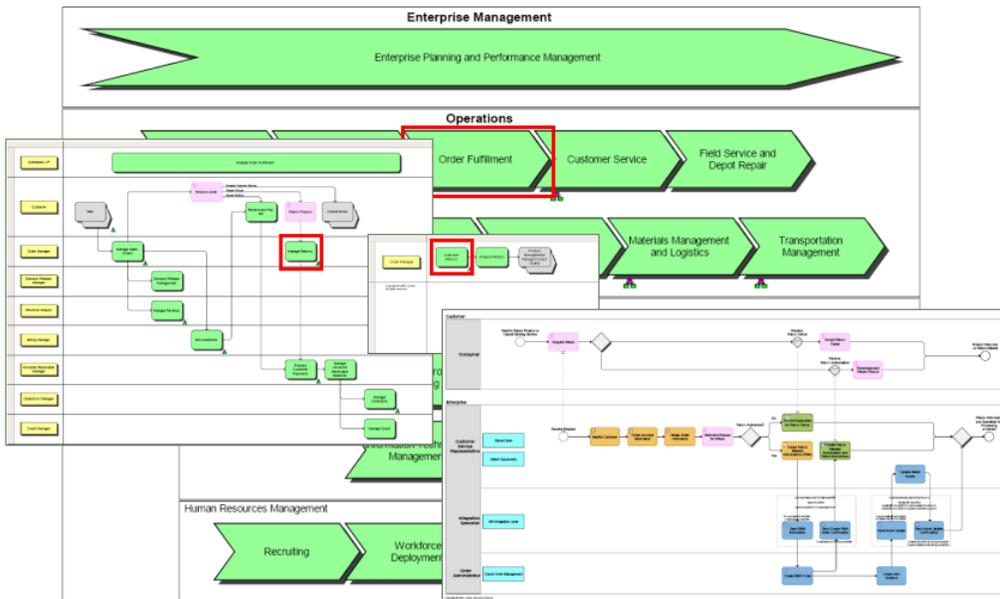


Figure 3: Functional Business Process View Drill-Down, All Four Levels (Order Fulfillment)

Our Composite Business Flows depict end-to-end processes that span portions of several functional business processes (Order to Cash, Procure to Pay, and Design to Release, for example).

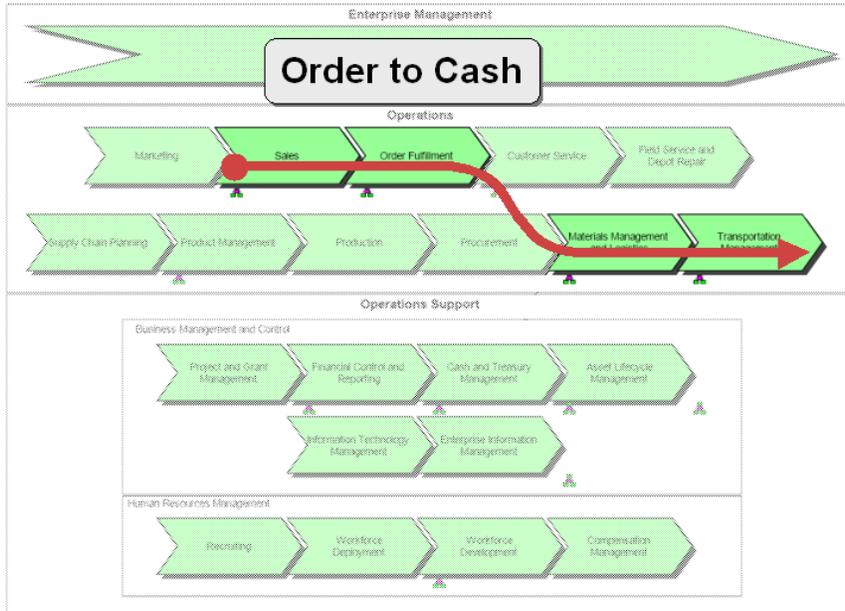


Figure 4: Composite Business Process View Drill-Down, Level 0 (Order to Cash)

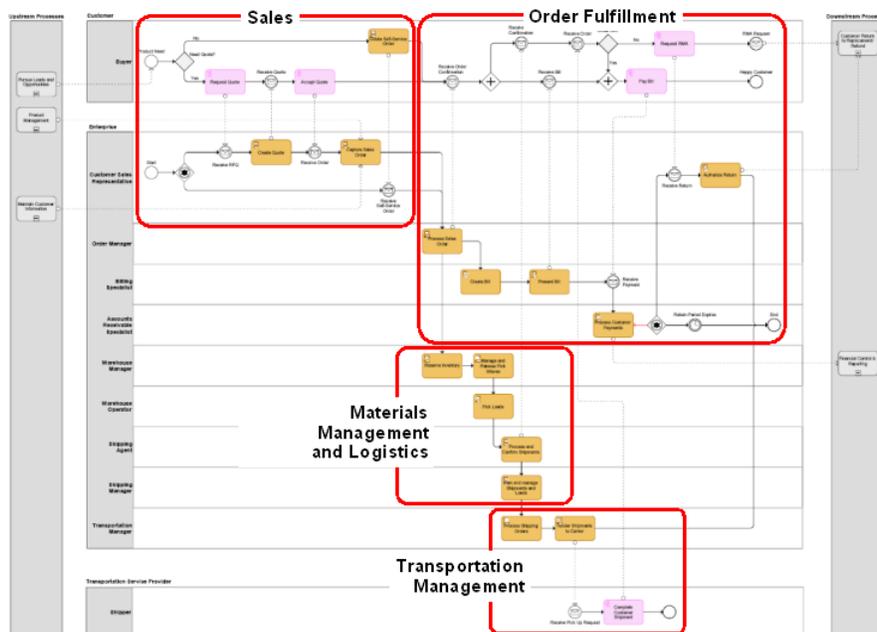


Figure 5: Composite Business Process View Drill-Down, Level 1 (Order to Cash)



# Chapter 5: Modeling Tool and Viewer

Our modeling tool is our own Oracle Business Process Analysis (BPA) Suite. Following are the components in the BPA Suite.

- **Business Process Architect**  
Standards-based tool for process modeling. Uses various standards-based notations and templates such as BPMN, EPC, etc.
- **Business Process Repository Server**  
Server component for sharing the process repository across multiple users in a collaborative environment
- **Business Process Simulator**  
Tool for simulating the process models based on a set of discrete events to do "what if" analysis
- **Business Process Publisher**  
Publishes process models to a large audience outside of the core team designing the process models
- **Oracle Extensions for SOA**  
Allows bi-directional integration with Oracle SOA Suite

We use the Business Process Architect and the Business Process Repository Server components to create the models. We then use the Business Process Publisher component to publish the models in HTML format. We provide the Business Process Publisher along with Oracle Application Integration Architecture release media pack for you to be able to view the published set of models. Once installed and implemented, you can allow business and technical analysts in your entire enterprise to view the models with a web browser. The published models include hyperlinks to entries in the Business Services Repository (BSR) where technical details are described for the Oracle Application Integration Architecture Release Vehicle integration artifacts.

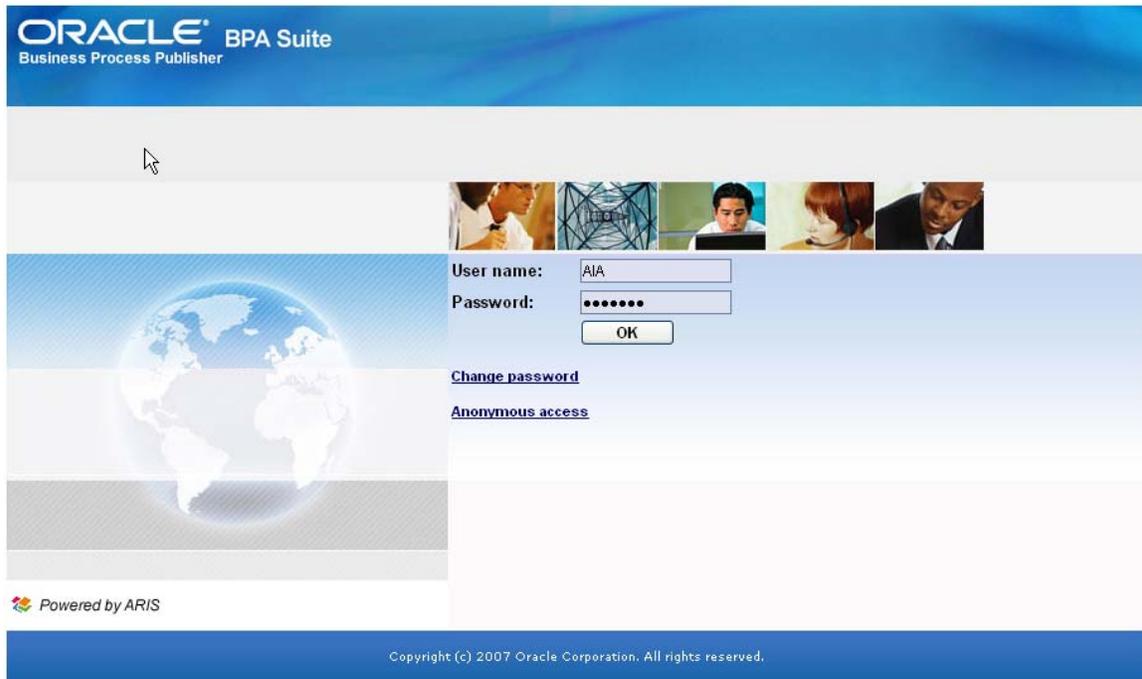
Following is a walk through the published model experience:

### Logon to the Business Process Publisher:

Your implementation specialist will provide a URL to the logon page.

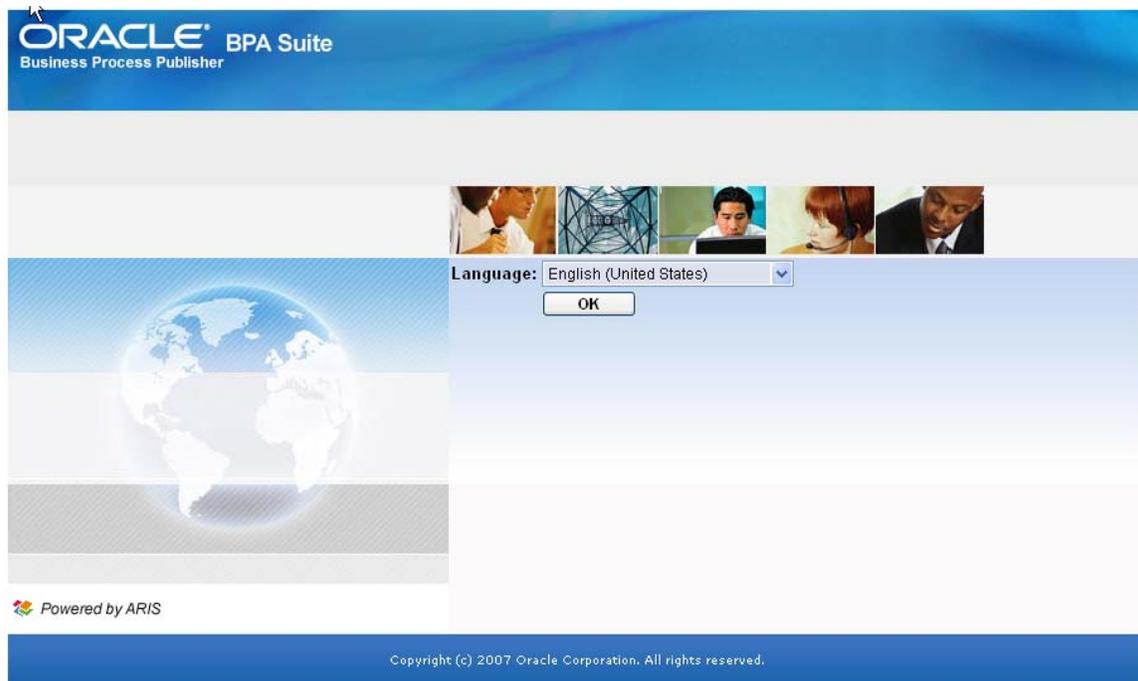
User name: AIA

Password: Welcome1

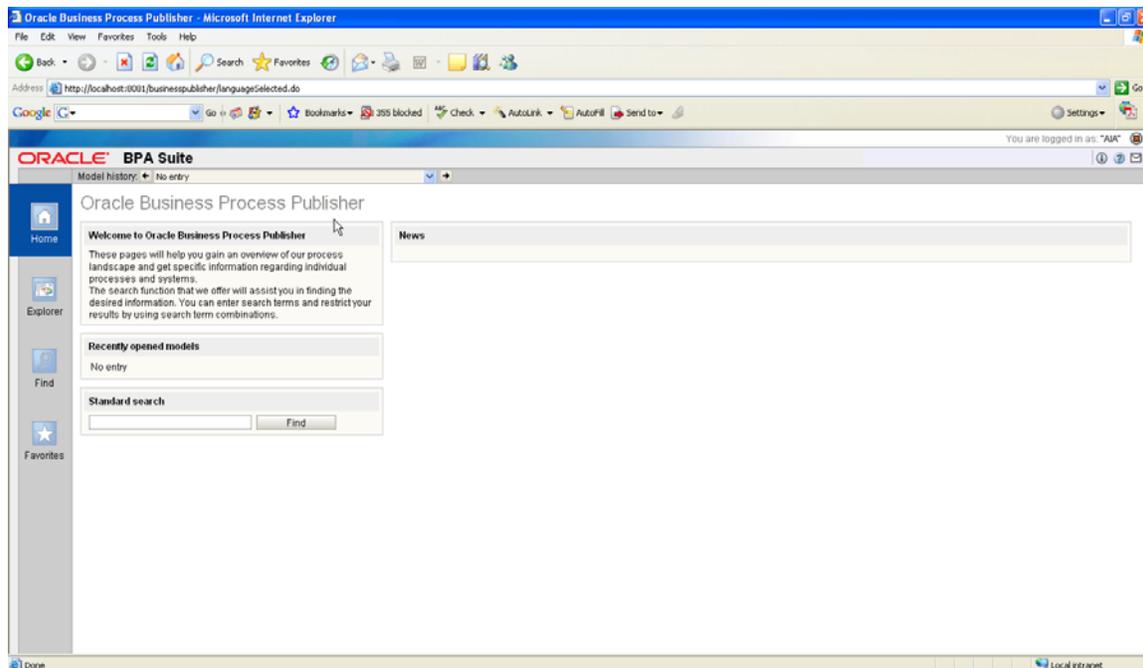


**Choose a language:**

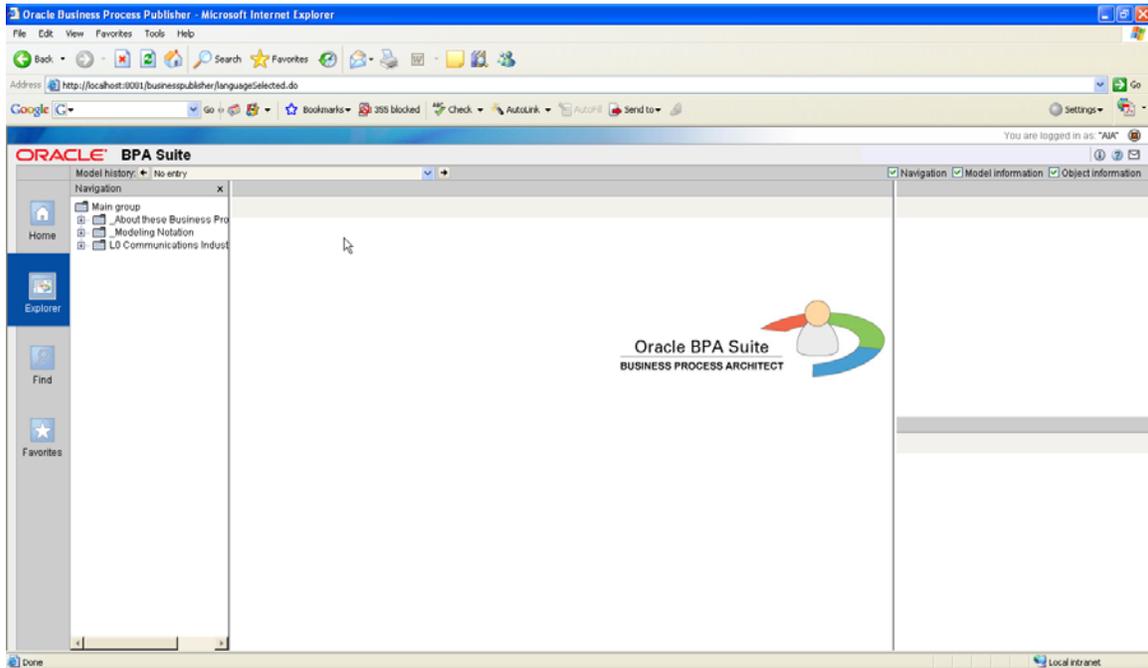
Only available in English at this time.



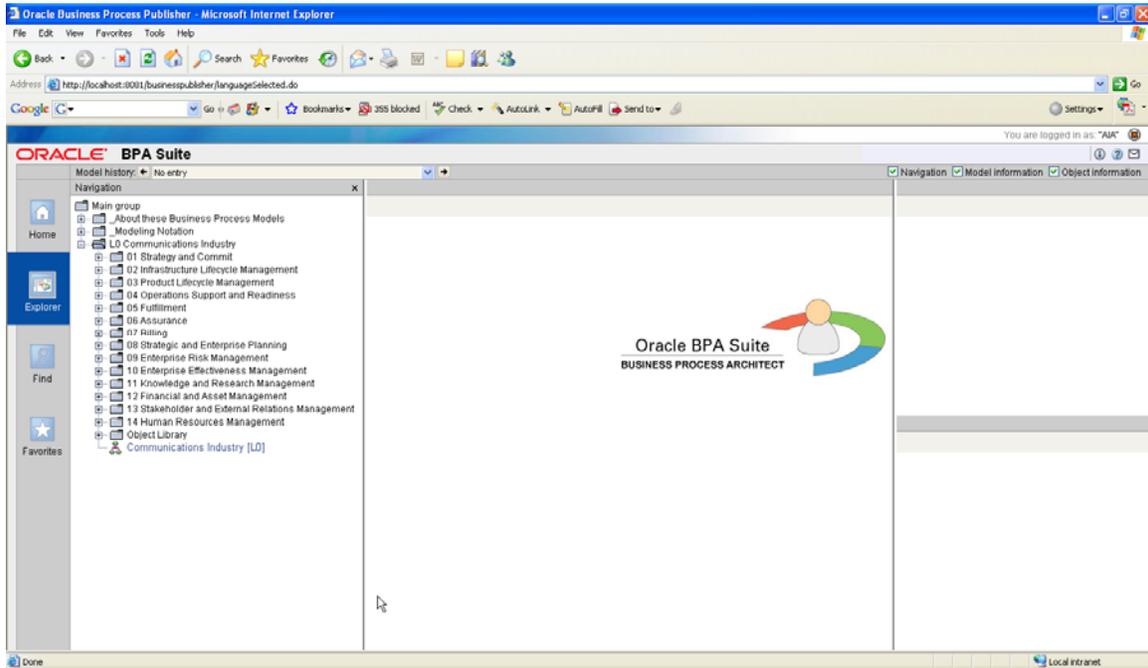
**Access Business Process Publisher homepage:**



## Choose Explorer module:



## Expand groups in navigation pane:



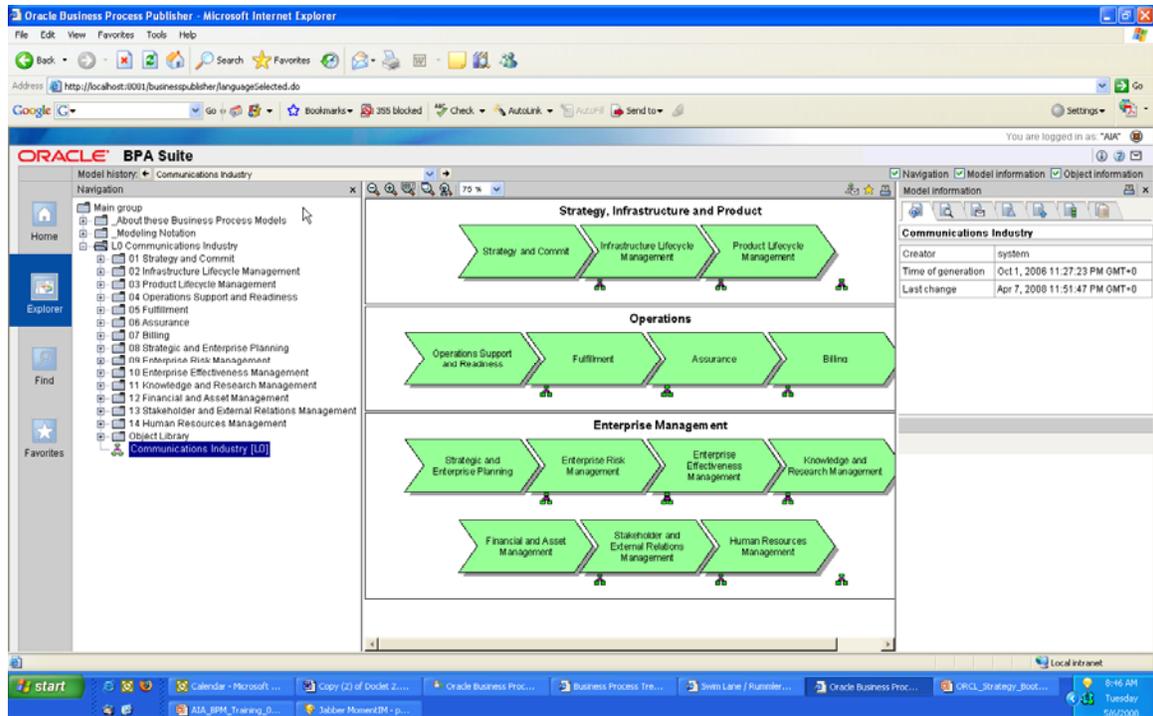
**Navigate to desired model and click on it:**

Model is displayed in model pane.

View model attributes in Model Information pane.

Use view controls  to zoom in and zoom out.

Navigate to a child model by clicking on the 'assignment icon' on the model , or by navigating to a model in the navigation pane.



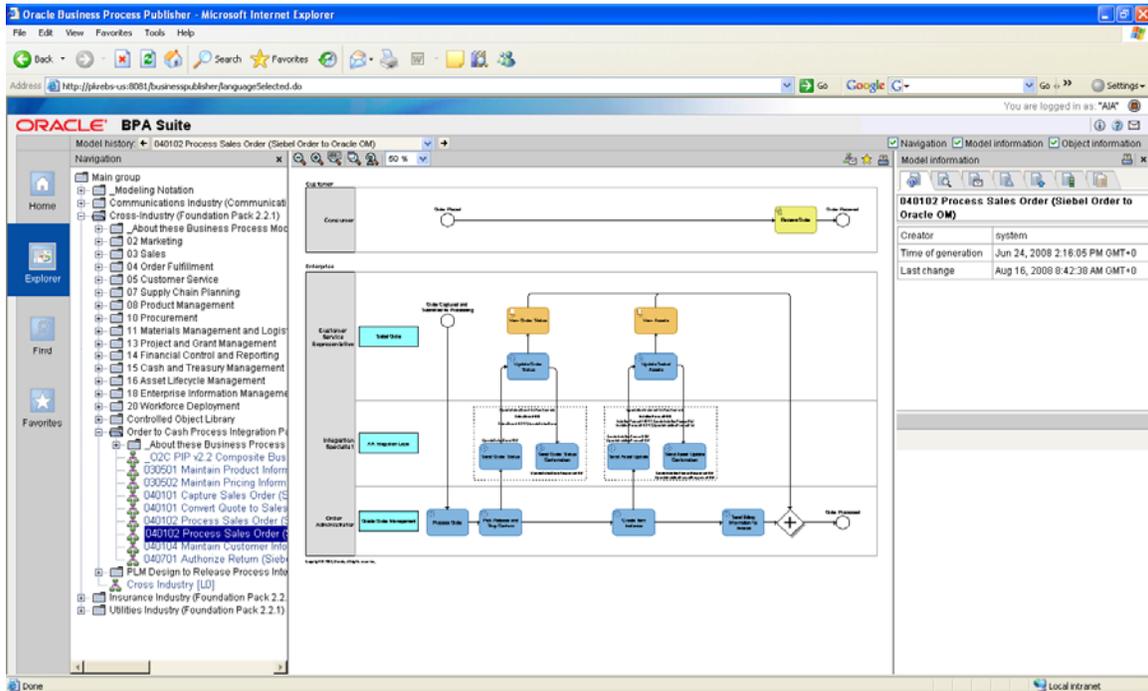
The screenshot displays the Oracle Business Process Publisher interface. The main window shows a model diagram for the 'Communications Industry'. The diagram is organized into three main sections:

- Strategy, Infrastructure and Product:** Contains three chevron-shaped process steps: 'Strategy and Commit', 'Infrastructure Lifecycle Management', and 'Product Lifecycle Management'.
- Operations:** Contains four chevron-shaped process steps: 'Operations Support and Readiness', 'Fulfillment', 'Assurance', and 'Billing'.
- Enterprise Management:** Contains two rows of chevron-shaped process steps. The first row includes 'Strategic and Enterprise Planning', 'Enterprise Risk Management', 'Enterprise Effectiveness Management', and 'Knowledge and Research Management'. The second row includes 'Financial and Asset Management', 'Stakeholder and External Relations Management', and 'Human Resources Management'.

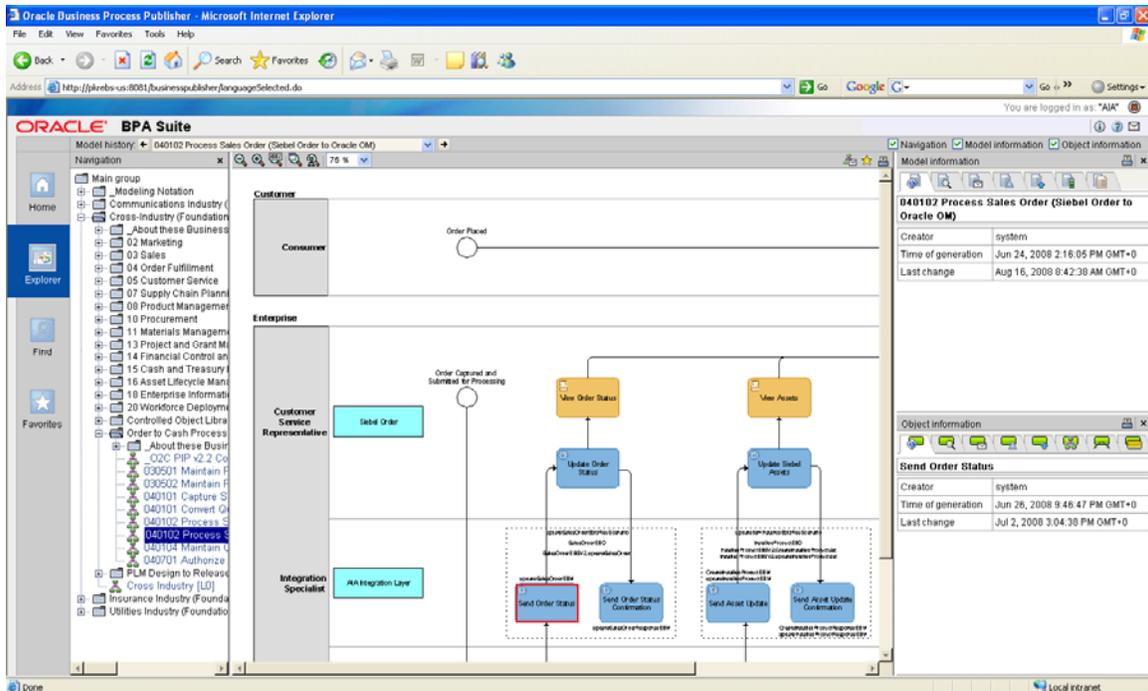
On the left, a navigation pane shows a tree structure of models, with 'Communications Industry [LD]' selected. On the right, a 'Model information' pane displays details for the selected model:

Communications Industry	
Creator	system
Time of generation	Oct 1, 2006 11:27:23 PM OMT-0
Last change	Apr 7, 2008 11:51:47 PM OMT-0

## Navigate to Level 3 model:



## View object attributes in Object Information pane:



## View object attributes for AIA artifacts:

Select Attributes tab.

The screenshot displays the Oracle Business Process Publisher interface. The main window shows a process diagram with nodes for 'Customer', 'Enterprise', and 'Integration Specialist'. The 'Integration Specialist' layer includes an 'AIA Integration Layer' box. The right-hand pane shows the 'Object information' for the selected artifact, 'Send Order Status'. The 'Attributes' tab is active, displaying a table of links and their details.

Name	Send Order Status
Remark/Example	This AIA integration artifact is industry specific and the links may only work a PIP BSR implementation.
Title 1	UpdateSalesOrderEbizReqScenario
Link 1	<a href="#">/AIA/rtfacts/LinkViewAIA?name=PIP2002C2%201.4&amp;type=Scenario</a>
Title 2	SalesOrderEBO
Link 2	<a href="#">/AIA/rtfacts/LinkViewAIA?name=SalesOrderEBO&amp;type=EBO</a>
Title 3	SalesOrderEBSV2 UpdateSalesOrd
Link 3	<a href="#">/AIA/rtfacts/LinkViewAIA?name=SalesOrderEBSV2&amp;type=Ser</a>
Title 4	UpdateSalesOrderEBM
Type	Function
Time of generation	Jun 26, 2008 9:46:47 PM GMT+0

## Access Business Services Repository (BSR) for AIA artifact entry.

Click on AIA artifact link.

Your implementation specialist will provide a User Name and Password for your BSR implemented instance.

### ORACLE® Application Integration Architecture

User Name

Password

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# Chapter 6: Integration with Business Services Repository

The Business Services Repository (BSR) is delivered with Oracle Application Integration Architecture (AIA) solutions. Our models include references to the AIA integration artifact metadata defined in the BSR as well as URL links to those BSR entries.

Following are samples of the 3 AIA artifact entries in BSR.

## Integration Scenario

**ORACLE** Application Integration Architecture [Home](#) [Logout](#)

[Home](#) [Service Repository](#) [Validation System](#) [Setup](#)

**Integration Scenario**

[Service Repository](#) > Integration Scenario [View EBO Documentation](#)

**Integration Scenario Summary**

Scenario Name	<input type="text"/>	Keyword	<input type="text"/>
Application Name	<input type="text"/>	EBO Name	<input type="text"/>

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Enter Scenario name and click Search

**ORACLE** Application Integration Architecture [Home](#) [Logout](#)

[Home](#) [Service Repository](#) [Validation System](#) [Setup](#)

**Integration Scenario**

[Service Repository](#) > Integration Scenario [View EBO Documentation](#)

**Integration Scenario Summary**

Scenario Name	UpdateCustomerParty Pr	Keyword	<input type="text"/>
Application Name	<input type="text"/>	EBO Name	<input type="text"/>

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Access BSR entry for selected Integration Scenario

**ORACLE** Application Integration Architecture Home Logout

Home Service Repository Validation System Setup

Service Repository > Integration Scenario

**Integration Scenario**

Service Name: <b>CustomerPartyEBS</b>	MEP: <b>REQUEST_RESPONSE</b>
Operation Name: <b>UpdateCustomerParty</b>	Life Cycle: <b>Yes</b>
Scenario Name: <b>UpdateCustomerParty Provider</b>	CAVS Enabled: <b>Yes</b>
Scenario Code: <b>PIP R003</b>	Description: <b>Implements the UpdateCustomerParty operation in the CustomerPartyEBS Service</b>

Keyword: **Portal, Siebel, CustomerParty, CustomerPartyEBO, Customer, Oracle Communications Integration Pack for Agent Assisted Customer Care**

**Provider Applications**

Expand All | Collapse All

Portal

Focus/Application Integration Scenario	Detail
<ul style="list-style-type: none"> <li>Provider Application: Portal</li> <li>Connector: UpdateCustomerPartyPortalProvABCSmpl</li> </ul>	<ul style="list-style-type: none"> <li>Available From:</li> <li>Interface Service Name:</li> <li>Interface Operation Name:</li> <li>Implementation Service Name: UpdateCustomerPartyPortalProvABCSmpl</li> <li>Implementation Operation Name: UpdateCustomerParty</li> <li>Interface Implementation Technology:</li> <li>Oracle Validated:</li> <li>Implementation Service Technology:</li> <li>Binding: SOAP</li> <li>State Management: Yes</li> <li>Chatty Conversation: Yes</li> </ul>

**Invoking Scenarios**

Scenario Name	Scenario Code	Scenario Type
UpdateCustomerParty Portal Requester	PIP R002	Requestor

TIP A provider scenario represents the communication path from provider applications, through their connector services, to an enterprise business service in the AIA integration layer. A provider scenario can be invoked by one or more scenarios that stand upstream of the given provider scenario.

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# Enterprise Business Object

**Element: CustomerPartyEBO**

<b>Name</b>	CustomerPartyEBO
<b>Type</b>	CustomerPartyEBOType
<b>Documentation</b>	A Customer Party represents a Customer Account in the deploying company's

**Element: CustomerParty/Identification**

<b>Name</b>	AccountIdentification
<b>Type</b>	corecom:IdentificationType
<b>Documentation</b>	Customer Account Identification

**Element: CustomerParty/OrganizationName**

<b>Name</b>	OrganizationName
<b>Type</b>	corecom:NameType
<b>Documentation</b>	Name of the Customer Organization

**Element: CustomerParty/PersonName**

<b>Name</b>	PersonName
<b>Type</b>	corecom:NameType
<b>Documentation</b>	Name of the Customer Person

**Element: CustomerParty/BaseLevelCode**

<b>Name</b>	LevelCode
<b>Type</b>	corecom:CodeType
<b>Documentation</b>	New customer, prospect, regular, short term and temporary

# Enterprise Business Service

```

<?xml version="1.0" encoding="UTF-8" ?>
<!-- Authored By: Sunil Kumar Rai -->
<!-- Date Created: 05-23-2007 -->
<!-- Date Last Updated: 09-20-2007 -->
- <definitions xmlns="http://schemas.xmlsoap.org/wsdl/" xmlns:telcocustmrsvcs="http://xmlns.oracle.com/EnterpriseServices/Industry/Telco/CustomerParty/V1"
  xmlns:telcocustmr="http://xmlns.oracle.com/EnterpriseObjects/Industry/Telco/EBO/CustomerParty/V1"
  xmlns:corecommon="http://xmlns.oracle.com/EnterpriseObjects/Core/Common/V1" xmlns:svcdoc="http://xmlns.oracle.com/Services/Documentation/V1"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" name="CustomerPartyEBS"
  targetNamespace="http://xmlns.oracle.com/EnterpriseServices/Industry/Telco/CustomerParty/V1">
- <documentation>
- <svcdoc:Service>
  <svcdoc:Description>Telco CustomerParty Enterprise Business Service</svcdoc:Description>
  <svcdoc:ServiceType>EnterpriseBusinessService</svcdoc:ServiceType>
  <svcdoc:DisplayName>TelcoCustomerPartyEBS</svcdoc:DisplayName>
  <svcdoc:Version>1.0</svcdoc:Version>
  <svcdoc:EBOName>CustomerPartyEBO</svcdoc:EBOName>
  <svcdoc:LifecycleStatus>Active</svcdoc:LifecycleStatus>
  <svcdoc:ImplementationTechnology>ESB</svcdoc:ImplementationTechnology>
</svcdoc:Service>
</documentation>
- <types>
- <xsd:schema targetNamespace="http://xmlns.oracle.com/EnterpriseServices/CustomerParty/V1" elementFormDefault="qualified">
  <xsd:import namespace="http://xmlns.oracle.com/EnterpriseObjects/Industry/Telco/EBO/CustomerParty/V1"
    schemaLocation="http://ap6040fems.us.oracle.com:7811/ATAComponents/EnterpriseObjectLibrary/Release1/Industry/Telco/Release1/EBO/CustomerParty/CustomerPartyEBM.xsd"
  >
  <xsd:import namespace="http://xmlns.oracle.com/EnterpriseObjects/Core/Common/V1"
    schemaLocation="http://ap6040fems.us.oracle.com:7811/ATAComponents/EnterpriseObjectLibrary/Release1/Core/Common/V1/Meta.xsd" />
</xsd:schema>
</types>
- <message name="QueryCustomerPartyListReqMsg">
- <documentation>
  - <svcdoc:Message>
    <svcdoc:Description>This message is used as the request payload to the QueryCustomerPartyList operation</svcdoc:Description>
  </svcdoc:Message>
</documentation>
  <part name="QueryCustomerPartyListEBM" element="telcocustmr:QueryCustomerPartyListEBM" />
</message>
- <message name="QueryCustomerPartyListRespMsg">

```



# Chapter 7: Authoritative and Guiding Sources for Industry Process Best Practices

The TeleManagement Forum enhanced Telecom Operations Map® (eTOM®) was used as a reference to frame the conceptual levels of the Communications business process models.

We continue to determine current external best practice and governing sources and to use them as references to frame and influence our business process models, including:

- Supply Chain Council (SCOR)
- Value-Chain Group (VCG)
- Federal Enterprise Architecture Business Reference Model (FEA)
- Other external industry best practice sources



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