The Order Management Integration Pack for Oracle Transportation Management (OTM), Oracle E-Business Suite (Oracle EBS) and Siebel Customer Relationship Management (Siebel CRM) implementation guide is a valuable resource for administrators and developers involved in the implementation, administration and deployment of end-to-end order management business process provided by Oracle Application Integration Architecture (Oracle AIA) pre-built integrations release 11.5.

The first part of this guide focuses on understanding the pre-built integration between Oracle Order Management and participating application such as Siebel CRM, OTM, and Oracle EBS. It also lists the various assumptions and constrains, process flows, process integration, interfaces and integration services used by Oracle Order Management pre-built integrations.

The second part of this guide discusses the customer data requirements, prerequisites, configuration steps and cross-references required for integrating Oracle Order Management with Siebel CRM, OTM, and Oracle EBS.
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Common Oracle AIA Pre-Built Integration Guides

Oracle Application Integration Architecture Pre-Built Integrations 11.1 includes the following guides shared by all products delivered with this release:

- Oracle Application Integration Architecture Installation and Upgrade Guide for Pre-Built Integrations Release 11.1
  This guide provides an overview of the installation process, including how to install, configure, and deploy your pre-built integrations. The steps required to upgrade your pre-built integrations to the latest release are also provided.

- Oracle Application Integration Architecture Pre-Built Integrations 11.1: Utilities Guide
  This guide describes:
  - How to work with and configure Session Pool Manager (SPM), which is a service in the Oracle SOA Suite web server whose primary function is to manage a pool of web server session tokens that can be reused by BPEL flows.
  - How to deploy and configure the AIACompositeScheduler. This is a utility component that is used by pre-built integrations to schedule a service-oriented architecture (SOA) composite to be invoked at the specified time interval.

- Oracle Application Integration Architecture Pre-Built Integrations 11.1: Product-to-Guide Index
  The Product-to-Guide index lists the guides that provide information for each product delivered in this release.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit
Master Notes

Master notes provide a one-stop reference point for the following:

- Latest manuals
- Alerts
- Troubleshooting details
- FAQs
- Patching information
- AIA community link and more.


Additional Resources

The following resources are also available:

- **Oracle Application Integration Architecture Foundation Pack:**
  Oracle AIA Pre-Built integrations require Foundation Pack 11.1.1.5.0 to be installed. Refer to the Foundation Pack documentation library on OTN to download the Foundation Pack guides at [http://download.oracle.com/docs/cd/E21764_01/aia.htm](http://download.oracle.com/docs/cd/E21764_01/aia.htm).

- **Oracle Application Integration Architecture: Product-to-Guide Index:**

- **Known Issues and Workarounds:**
  My Oracle Support: [https://support.oracle.com/](https://support.oracle.com/)

- **Release Notes:**

- **Documentation updates:**
Part I

Understanding the Delivered Process Integrations

This part contains the following chapters:

- Chapter 1, "Oracle Order Management Integration Pack for OTM, Oracle EBS, and Siebel CRM"
- Chapter 2, "Process Integration for Customers"
- Chapter 3, "Process Integration for Location"
- Chapter 4, "Process Integration for Product"
- Chapter 5, "Process Integration for Query Transportation Order Itinerary"
- Chapter 6, "Process Integration for Transportation Orders"
- Chapter 7, "Process Integration for Order Status"
Oracle Order Management Integration Pack for OTM, Oracle EBS, and Siebel CRM

This chapter provides an overview of the Oracle Order Management Integration Pack for Oracle Transportation Management, Oracle E-Business Suite, and Siebel CRM, and discusses participating applications, business process flows as well as assumptions and constraints.

This chapter includes the following sections:

- Section 1.1, "Overview"
- Section 1.2, "Participating Applications"
- Section 1.3, "Business Process Flows"
- Section 1.4, "Assumptions and Constraints"

1.1 Overview

The Oracle Order Management for Oracle Transportation Management, Oracle E-Business Suite, and Siebel CRM pre-built integration provides streamlined and end-to-end order management business process flows that enable faster time to process the transportation orders and market new products and services.

This pre-built integration interacts with the applications, such as Siebel CRM, Oracle Transportation Management (OTM), and Oracle E-Business Suite (Oracle EBS) to enable the integration process.

This pre-built integration allows you to synchronize Siebel customer information to Oracle EBS and OTM. It also allows you to synchronize location and product information from Siebel CRM to OTM. An order is rated in Siebel CRM from OTM and subsequently synchronized in OTM upon submission, and any change in order status in OTM is synchronized back to Siebel CRM.

1.1.1 Key Benefits

The Oracle Order Management for Oracle Transportation Management, Oracle E-Business Suite, and Siebel CRM pre-built integration provides these key benefits:

- Customer is kept up to date in Siebel CRM, OTM, and Oracle EBS. By having a single view of the customer, they can be served better by providing the correct products and services, up-sell and cross-sell, and so on.

- Order capturing (Siebel CRM) and order fulfillment system (OTM) must have up-to-date, correct information about customers, locations, and products for order rating, capture, and execution.
Participating Applications

- No manual revision of order release or sell shipment is necessary in the fulfillment (OTM) system.
- Improved customer service representative (CSR) productivity because CSR and sales representatives can execute a rating query from the order capture system (Siebel CRM) into the rating engine to provide the customer with various options about itineraries (rates and routing).
- Increased operational efficiencies because data is not manually replicated.
- Pre-integrated solution leads to lower cost and lower risk for implementation.
- Faster time from order capture to shipment delivery and then to invoicing.
- Improved customer service because real-time synchronization leads to better service to customers.
- Enhanced customer visibility and accuracy.
- Faster time-to-market with new products and services.

1.1.2 Security

The Oracle Order Management for Oracle Transportation Management, Oracle E-Business Suite, and Siebel CRM pre-built integration has been enhanced with Oracle Web Services Manager (OWSM), which enables attaching OWSM policies to services and passing the OTM password information through csf-keys.


1.2 Participating Applications

This section provides an overview of the participating applications in this pre-built integration.

1.2.1 Siebel CRM and Order Management

- Siebel applications maximize sales effectiveness in real time by accelerating the quote-to-cash process, aligning sales channels, increasing pipeline and win rates, and raising average transaction values.
- Siebel Order Management enables employees such as salespeople and call center agents to create and manage orders through their entire life cycle.
  You can closely integrate Siebel Order Management with back-office systems, which enables users to perform tasks such as confirming availability and monitoring the fulfillment process.
  - Create orders for new products and services.
  - Modify in-process orders that have been submitted for fulfillment.

For more information about Siebel CRM, see Siebel CRM product documentation.

1.2.2 Oracle Transportation Management

OTM allows organizations to gain control of transportation and logistics operations while minimizing costs and eliminating inefficient and redundant procedures. It is a
single, web-architected application for all the transportation needs that combines broad logistics capabilities with deep transportation-management functionality.

For more information about OTM, see Oracle Transportation Management product documentation.

1.2.3 Oracle E-Business Suite

Oracle trading community architecture (TCA) enables you to manage complex information about the parties or customers who belong to your commercial community, including organizations and locations. The information is maintained in TCA is the single source of trading community information for Oracle E-Business Suite applications. These applications, and TCA itself, provide user interfaces and other features for you to view, create, and update customer information.

For more information about TCA, see Oracle E-Business Suite TCA documentation.

1.3 Business Process Flows

The Oracle Order Management for Oracle Transportation Management, Oracle E-Business Suite, and Siebel CRM pre-built integration consists of these integration flows:

- Synchronizing Customer
- Synchronizing Location
- Synchronizing Product
- Querying Order Itinerary (Rates and Routes)
- Synchronizing Order and Order Status

The main focus of this integration is to support the Transportation Order Management business flow that spans the three participating applications.

1.3.1 Synchronizing Customer Integration

Figure 1–1 shows the customer process integration:
1.3.2 Synchronizing Location Integration

Figure 1–2 shows the location process integration:
1.3.3 Synchronizing Product Integration

Figure 1–3 shows the product process integration:
1.3.4 Querying Order Itinerary and Rate Integration

Figure 1–4 shows the query order itinerary process integration:
1.3.5 Synchronizing Order and Order Status Integration

Figure 1–5 shows the order process integration:
1.4 Assumptions and Constraints

These are the assumptions and constraints for the Oracle Order Management for Oracle Transportation Management, Oracle E-Business Suite, and Siebel CRM pre-built integration:

- This integration supports the business-to-business Transportation Order Management flows, but not the business-to-customer scenarios.
- The customer accounts in Siebel (tendering party, liable party, invoice to party) should be synchronized as part of customer synchronization. Customers must be synchronized before they can be used in order flow.
- Siebel commodity products should be synchronized to commodity and packaged items of OTM before the order flow.
- The locations in the source, destination, or any other stop should also be synchronized as part of the location flow. Locations must be set up and synchronized to OTM before they are used in order flow.
- The accessorial and the special services (actions) setup are done manually.
- No initial bulk load of any data exists between any applications.
- Deleting an order in Siebel is not supported.
- Delivered support is for Siebel SIA version only.
This chapter provides an overview of the process integration for customers and discusses business process flows, assumptions and constraints, Siebel Customer Relationship Management (Siebel CRM), Oracle E-Business Suite (Oracle EBS), and Oracle Transportation Management (OTM) interfaces, core Oracle Application Integration Architecture (Oracle AIA) components, and integration services.

This chapter includes the following sections:

- Section 2.1, "Overview"
- Section 2.2, "Business Process Flows"
- Section 2.3, "Assumptions and Constraints"
- Section 2.4, "Siebel CRM Interfaces"
- Section 2.5, "Oracle EBS Interfaces"
- Section 2.6, "OTM Interfaces"
- Section 2.7, "Core Oracle AIA Components"
- Section 2.8, "Integration Services"

### 2.1 Overview

The process integration for creating and synchronization of customer accounts between Siebel CRM, Oracle EBS, and OTM involves these integrations:

- Synchronize create account from Siebel CRM to OTM and Oracle EBS.
- Synchronize update account from Siebel CRM to OTM and Oracle EBS.

Customers are important for any transportation order. In Siebel CRM, the customers are created as accounts. These accounts must be in OTM for execution of the order and the same accounts must be in Oracle EBS for billing purpose.

### 2.2 Business Process Flows

In this integration, Siebel sends accounts to OTM and Oracle EBS. Whenever a new account is created in Siebel, a real-time synchronization flow is initiated to synchronize it to a customer account in Oracle EBS. A new location and the corresponding corporation are created in OTM simultaneously for that Siebel account.

The addresses of the Siebel CRM account are synchronized to Oracle EBS to create locations, party sites, and account sites are synchronized as separate locations in OTM.
The Bill To and Ship To address relationships from Siebel CRM are synchronized to Party Site Use and Account Site Use in Oracle EBS and to Location Roles in OTM.

If an update to a customer record or any of the details, for example, addresses, contacts occurs in Siebel CRM, the updated account record is synchronized to both OTM and Oracle EBS.

**Figure 2–1  Customer Process Integration Flow**

**Figure 2–2  Incremental Changes in the Account Sequence Diagram**

Siebel application can send one of these messages:

- **Account Message** - This message contains the details about an account and its associated addresses and contacts. This message is sent to SyncAccountSiebelReqABCSImpl requester process. The requester process converts the message to SyncCustomerPartyListEBM and sends it to CustomerPartyEBS. From enterprise business service (EBS), the message then flows through the OTM provider and Oracle EBS provider to create the entries in the respective systems.

- **Address Message** - This message comes to application integration architecture (AIA) layer when an address is modified in Siebel CRM. Siebel CRM sends an address message that contains the changed address data and all the associated accounts and locations for that address. Master Data Management (MDM) code then deciphers that message, picks up the associated accounts, and for each account it creates an account message and sends it to the MDM account requester. The requester then processes the message in the same manner as described in account message.
Contact Message - This message comes to the Oracle AIA layer when a contact is modified in Siebel CRM. Siebel CRM sends a contact message that contains the changed contact data and all the associated accounts and locations for that contact. The MDM code then deciphers that message, picks up the associated accounts, and for each account it creates an account message and sends it to the MDM account requester. The requester then processes the message in the same manner as described in account message.

2.3 Assumptions and Constraints

These are the solution assumptions and constraints:

- Only B2B (business to business) scenarios are supported. B2C (business to customer) scenarios are not supported.
- Siebel contacts are synchronized as account contacts to Oracle EBS, and not as person parties in Oracle EBS; however, contacts related to synced locations are synced to OTM.
- Deletions of accounts, contacts, or address associated to a customer is not supported in the synchronization.
- If any error occurs and the customer message does not reach the target application, then AIA error handling framework notifies you. You should then manually re-submit that transmission that failed for re-processing.
- This integration does not perform any business validation and thus does not raise errors for business data issues.
- The customer integration only supports the synchronization of accounts (and its addresses and contacts).
- Contacts can be shared across to multiple accounts in Siebel. In OTM, the same contact cannot be associated to multiple locations. Thus, if a contact is associated to two different locations in Siebel, then the same contact is created twice in OTM for each location.
- Prospect contacts are not synchronized from Siebel.
- Account hierarchy synchronization is not in the scope of this release.
- The process integration pack for Oracle Customer Hub master data management is used for transformation from Siebel to enterprise business object (EBO) and Oracle EBS provider (EBO to Oracle EBS) transformation.
- OTM domain value is derived from business unit mapping in cross-references. If you want to use a specific logic for deriving the domain, you must use the extensible transformation template.
- The OTM specific columns in cross-references are populated based on the identifiers derived in the OTM connector. If you want to pass a different value in the OTM identifier, you can use the transformation's extensibility to update the cross-reference as well.

The direction of data flow is only from Siebel to OTM and Oracle EBS. The reverse data flow is not supported in this integration. If any customer data is modified or created in OTM or Oracle EBS, those changes are not reflected in Siebel CRM. Any subsequent synchronization of the same data from Siebel to OTM or Oracle EBS may overwrite the changes made in OTM or Oracle EBS.
2.4 Siebel CRM Interfaces

The schemas available for this outbound integration from Siebel are:
- Account schema
- Change Address schema
- Change Contact schema

For more information about Siebel customer WSDL and schema definition, see Oracle Customer Master Data Management Integration documentation.

2.5 Oracle EBS Interfaces

For more information about Oracle EBS web services definition language (WSDL) and schema definition, see Oracle Customer Master Data Management Integration documentation.

For more information about Oracle EBS web services and documentation prior to Release 12.1.3, see the library on Oracle Technology Network: http://www.oracle.com/technetwork/documentation/applications-167706.html?.

For Oracle E-Business Suite documentation for R12.1.3 and beyond, see this library: http://download.oracle.com/docs/cd/E18727_01/index.htm.

2.6 OTM Interfaces

The OTM provides an interface through a web service to connect to its application. This connectivity is established as a partner link in the provider service. The logistics web service on being called immediately returns an acknowledgment with a transmission number. When the processing is complete, it then sends a transmission report back indicating the success or the failure.

For more information about the Logistics Service, see Oracle Transportation Management Integration Guide.

2.7 Core Oracle AIA Components

The integration flow uses these components:
- CustomerPartyEBO
- CustomerPartyEBM

The core enterprise business object (EBO) and enterprise business message (EBM) XSD files can be located by EBO within the $AIA_HOME/AIAMetaData/AIAComponents/EnterpriseObjectLibrary/Core/EBO/ parent folder.

The core enterprise business services (EBS) web services definition language (WSDL) files can be located by EBO within the $AIA_HOME/AIAMetaData/AIAComponents/EnterpriseBusinessServiceLibrary/Core/EB O/ parent folder.

For detailed documentation of individual EBOs and EBMs, click AIA Reference Doc link on EBO and EBM detail pages in the Oracle Enterprise Repository.

For more information about using the Oracle Enterprise Repository and configuring it to provide the AIA Reference Doc link, see Oracle Fusion Middleware Developer’s Guide.

for Oracle Application Integration Architecture Foundation Pack, "Configuring and Using Oracle Enterprise Repository as the Oracle AIA SOA Repository."

EBOs can be extended, for instance, to add new data elements. These extensions are protected and remain intact after a patch or an upgrade.

For more information, see Oracle Fusion Middleware Developer’s Guide for Oracle Application Integration Architecture Foundation Pack, "Extensibility for AIA Artifacts.

2.8 Integration Services

The services delivered with the customer process integration are:

- SyncCustomerPartyListLogisticsProvABCSImpl
- JMS Topic
- SyncCustomerPartyJMSProducerV1
- SyncCustomerPartyEbizJMSConsumerV1
- SyncCustomerPartyLogisticsJMSConsumer

2.8.1 SyncCustomerPartyListLogisticsProvABCSImpl

The SyncCustomerPartyListLogisticsProvABCSImpl service is a Business Process Execution Language (BPEL) process that receives SyncCustomerPartyListEBM as input from CustomerPartyListLogisticsJMSConsumerV1, transforms that message to Logistics application business message (ABM), and calls the Oracle Transportation Management (OTM) web service to process that message in OTM. Cross-reference values are populated upon successful message processing.

2.8.2 JMS Topic

A JMS topic receives a message from the customer party EBS and routes it to both OTM connector and Oracle E-Business Suite connector. The topic is created in the AIA database under the user JMSUSER. The topic name is AIA_CustomerPartyJMSTV1.

2.8.3 SyncCustomerPartyJMSProducerV1

This service publishes the SyncCustomerPartyListEBM JMS message from EBS into the topic.

This is a mediator service with JMS Adapter and a routing rule. It accepts SyncCustomerPartyListEBM as input from CustomerPartyEBSV2. The received Customer Party List enterprise business message (EBM) payload message is published into the JMS Topic AIA_CustomerPartyJMSTV1.

2.8.4 SyncCustomerPartyEbizJMSConsumerV1

SyncCustomerPartyEbizJMSConsumerV1 service is a subscriber to the topic that dequeues the SyncCustomerPartyListEBM JMS message from the JMS Topic for Oracle E-Business Suite connector.

This is a mediator service with JMS Adapter. This adapter dequeues the SyncCustomerPartyListEBM message for the subscribed consumer from the JMS Topic AIA_CustomerPartyJMSTV1 and routes the message to the SyncCustomerPartyListEbizProvABCSImpl provider service.
2.8.5 SyncCustomerPartyLogisticsJMSConsumer

SyncCustomerPartyLogisticsJMSConsumerV1 service is the other subscriber of the topic that dequeues the SyncCustomerPartyListEBM JMS message from the topic for logistics connector.

This is a mediator service with JMS Adapter. This adapter dequeues the SyncCustomerPartyListEBM message for the subscribed consumer from the JMS Topic AIA_CustomerPartyJMSTV1 and routes to the SyncCustomerPartyListLogisticsProvABCSImpl.
This chapter provides an overview of the location process integration and discusses business process flows, assumptions and constraints, Siebel Customer Relationship Management (Siebel CRM) and Oracle Transportation Management (OTM) interfaces, core Oracle Application Integration Architecture (Oracle AIA) components, and integration services.

This chapter includes the following sections:

- Section 3.1, "Overview"
- Section 3.2, "Business Process Flows"
- Section 3.3, "Assumptions and Constraints"
- Section 3.4, "Siebel CRM Interfaces"
- Section 3.5, "OTM Interfaces"
- Section 3.6, "Core Application Integration Architecture Components"
- Section 3.7, "Integration Services"

### 3.1 Overview

In Siebel CRM, the locations are created separately from an address or an account. In OTM these locations are required for execution of the order.

In this integration process Siebel sends locations to OTM. Whenever a location is created or updated in Siebel, a corresponding location record is created or updated in OTM. When an address, contact, or Bill To/Ship To details change in Siebel CRM, all impacted locations and roles are synchronized to reflect the changes in OTM.

### 3.2 Business Process Flows

The process integration for location supports these integration flows:

- Creating Location
- Updating Location

Figure 3–1 shows the process integration for location:
The location process integration flow diagram displays the design where Siebel CRM sends the location message to a queue. A JMS consumer reads the message, and sends it to the requester. The Siebel message is transformed to SyncTransportationStopListEBM in requester connector, and the requester connector sends the enterprise business message (EBM) message to Enterprise Business Service (EBS). The EBS routes the message to OTM provider. Then provider connector transforms the EBM to logistics schema and sends that logistics message to OTM web service to create location in OTM.

### 3.2.1 Synchronizing Location Information

Figure 3–2 shows the synchronization or location:

### 3.2.2 Overall Integration Flow

Addresses and contacts are created independently of a location. When you create a location, you associate addresses and contacts with that location. When you synchronize the location to OTM, it creates a new location, and the address information is attached with that location in OTM. OTM creates new contacts for each associated contact.

If you update any of the address or contact information in Siebel CRM, you must change all corresponding locations to reflect the changes. For example, when you change an address in Siebel CRM, it sends out an address message with a list of affected locations and accounts. Similarly, if you change a contact, it sends out a contact message with the list of affected locations and accounts. The system sends these messages to the Master Data Management (MDM) aggregator process.

The existing MDM process receives these messages, goes through the list of accounts, and prepares the account message. For these account messages, it calls the account
integration flow. Since location is a new object, MDM cannot update the data for affected locations; to address this gap, it adds new services to the MDM aggregator process.

Figure 3–3 illustrates the new services added in the MDM Aggregator scheme. The new services are indicated in blue boxes.

Figure 3–3  MDM Aggregator Scheme - New Services

3.3 Assumptions and Constraints

These are the solution assumptions and constraints for the process integration for location:

- This process integration does not support initial loading of existing location data.
- This process integration does not support delete operations for the location, contacts, or roles on accounts.
- You create contacts once in Siebel CRM and associate them to multiple locations. In OTM, the same contact cannot be associated to multiple locations. Thus, if you associate a contact to two different locations in Siebel CRM, then you must create the same contact in OTM for each location.
- If an error occurs in the service layer and the location message does not reach the target application, then the AIA error handling framework notifies you. You should resubmit the failed transmission manually for reprocessing.
- This process integration does not perform any business validation; thus, it does not raise errors for those business validation issues.
- The location integration only supports the synchronization of locations.
3.4 Siebel CRM Interfaces

These three schemas are available for this integration from Siebel CRM:

- Location schema
- Change Address schema
- Change Contact schema

For more information about Siebel CRM customer web services definition language (WSDL) and schema definition, see Oracle Customer Master Data Management Integration documentation.

3.5 OTM Interfaces

OTM provides an interface through a web service to connect to its application. This connectivity is established as a partner link in the provider service. When called, the logistics web service immediately returns an acknowledgment with a transmission number. After processing is complete, it sends a transmission report back indicating the success or the failure of the process.

For more information about the Logistics Service, see Oracle Transportation Management Integration Guide.

3.6 Core Application Integration Architecture Components

The integration flow uses these components:

- TransportationStopEBO
- SyncTransportationStopListEBM

The core enterprise business object (EBO) and enterprise business message (EBM) XSD files can be located by EBO within the $AIA_
HOME/AIAMetaData/AIAComponents/EnterpriseObjectLibrary/Core/EBO/
parent folder.

The core enterprise business services (EBS) web services definition language (WSDL) files can be located by EBO within the $AIA_ 
HOME/AIAMetaData/AIAComponents/EnterpriseBusinessServiceLibrary/Core/EB 
O/ parent folder.

For detailed documentation of individual EBOs and EBMs, click AIA Reference Doc 
link on EBO and EBM detail pages in the Oracle Enterprise Repository.

For more information about using the Oracle Enterprise Repository and configuring it 
to provide the AIA Reference Doc link, see Oracle Fusion Middleware Developer’s Guide 
for Oracle Application Integration Architecture Foundation Pack, "Configuring and Using 
Oracle Enterprise Repository as the Oracle AIA SOA Repository."

EBOs can be extended, for instance, to add new data elements. These extensions are 
protected and remain intact after a patch or an upgrade.

For more information, see Oracle Fusion Middleware Developer’s Guide for Oracle 
Application Integration Architecture Foundation Pack, "Extensibility for AIA Artifacts.

3.7 Integration Services

These services are delivered with this integration:
- SyncTransportationStopSiebelJMSConsumer
- SyncTransportationStopListSiebelReqABCSImpl
- TransportationStopEBS
- TransportationStopResponseEBS
- SyncTransportationStopListLogisticsProvABCSImpl
- SyncTransportationStopAddressSiebelAggregatorAdapterConsumer
- SyncTransportationStopContactSiebelAggregatorAdapterConsumer
- SyncTransportationStopAggregatorRoutingService

3.7.1 AIA Transportation Stop Queue

The transportation stop queue is used to queue Siebel location messages. This is an 
AQ. This queue resides on any Oracle database. For this integration, this queue is 
located on the AIA database. The topic name is AIA_SiebelTransportStopJMSQ.

3.7.2 SyncTransportationStopSiebelJMSConsumer

SyncTransportationStopSiebelJMSConsumer is the consumer for the JMS queue that is 
invoked when Siebel sends a location message to the AIA_SiebelTransportStopJMSQ 
queue. This service routes and invokes the 
SyncTransportationStopListSiebelReqABCSImpl service.

3.7.3 SyncTransportationStopListSiebelReqABCSImpl

SyncTransportationStopListSiebelReqABCSImpl is a BPEL process that receives Siebel 
Location application business message (ABM) as input from the Siebel system and 
transforms that message to SyncTransportationStopListEBM. After successful 
transformation, the process performs mapping and also populates the enterprise
business message (EBM) header and cross-reference tables. This BPEL process invokes TransportationStopEBS with SyncTransportationStopListEBM as input.

3.7.4 TransportationStopEBS

TransportationStopEBS is an Enterprise Business Service. This service is used to route all location related actions like CreateTransportationStopList, QueryTransportationStop, SyncTransportationStopList, and UpdateTransportationStopList, and so on.

3.7.5 TransportationStopResponseEBS

TransportationStopResponseEBS is an Enterprise Business Service. This service is used to route all location related actions like CreateTransportationStopListResponse, QueryTransportationStopResponse, SyncTransportationStopListResponse and UpdateTransportationStopListResponse, and so on.

3.7.6 SyncTransportationStopListLogisticsProvABCSImpl

SyncTransportationStopListLogisticsProvABCSImpl is a BPEL process that receives the SyncTransportationStopListEBM as a request from the TransportationStopEBS and invokes the logistics web service. The web service immediately sends an acknowledgment and sends a transmission report about the success or failure of the data sent to Oracle Transportation Management (OTM). After the location is successfully processed in OTM, this process updates cross-reference data with OTM information.

3.7.7 SyncTransportationStopAddressSiebelAggregatorAdapterConsumer

SyncTransportationStopAddressSiebelAggregatorAdapterConsumer is a BPEL process. It receives Siebel Address application business message (ABM) as an input from the SyncCustomerSiebelEventAggregator, returns a Siebel location ABM message, and invokes the SyncTransportationStopListSiebelReqABCSImpl service.

3.7.8 SyncTransportationStopContactSiebelAggregatorAdapterConsumer

SyncTransportationStopContactSiebelAggregatorAdapterConsumer is a BPEL process. It receives Siebel contact ABM as input from the account aggregator service SyncCustomerSiebelEventAggregator and transformed to Siebel location ABM and invokes the SyncTransportationStopListSiebelReqABCSImpl service.

3.7.9 SyncTransportationStopAggregatorRoutingService

This is a mediator service that routes the ABM message received from SyncCustomerSiebelEventAggregator to SyncTransportationStopAddressSiebelAggregatorAdapterConsumer or SyncTransportationStopContactSiebelAggregatorAdapterCons.
This chapter provides an overview of the process integration for product and discusses business process flows, assumptions and constraints, Siebel Customer Relationship Management (Siebel CRM) and Oracle Transportation Management (OTM) interfaces, core Oracle Application Integration Architecture (Oracle AIA) components, and integration services.

This chapter includes the following sections:

- Section 4.1, "Overview"
- Section 4.2, "Business Process Flows"
- Section 4.3, "Assumptions and Constraints"
- Section 4.4, "Siebel CRM Interfaces"
- Section 4.5, "OTM Interfaces"
- Section 4.6, "Core Oracle AIA Components"
- Section 4.7, "Integration Services"

4.1 Overview

In the Oracle Order Management for OTM, oracle E-Business Suite (Oracle EBS), Siebel CRM prebuilt integration there are four different types of products:

- Commodity
- Transportation
- Accessorial
- Special Services

Whenever a product is created or updated in Siebel CRM, a synchronization flow is initiated to route these to the oracle AIA layer. However, Oracle AIA routes only the product type of commodity to OTM.

For every commodity type product from Siebel CRM, these objects are created, updated, or both in OTM:

- Item
- Commodity
- Packaged Item

One-to-one mapping should exist among the item, commodity, and packaged item in OTM.
- The transportation order in Siebel CRM has certain order lines that have product of type commodity associated to them.
- In OTM application, the order release has release lines and ship units associated to it.
- In the release line, the packaged item is associated to it, whereas in the release ship unit, a commodity is associated.
- Additionally in OTM, the packaged item is referred to in the ship unit in the sell shipment.

The process integration for product supports these integration flows:
- Creating product
- Updating product

4.2 Business Process Flows

Figure 4–1 shows the product process integration:

Whenever a product is created, updated, or both in Siebel CRM, Siebel CRM sends a message in their schema in a queue. Oracle AIA receives the message and converts it to the EBM format, and then converts the EBO into appropriate OTM format and finally sends it to OTM.

One-to-one mapping should exist among the item, commodity, and packaged item in OTM.

4.2.1 Synchronizing Product Information

When a product of type commodity is created or updated in Siebel CRM, the updated record must be synchronized to OTM.

Figure 4–2 shows the synchronization of a product details from Siebel CRM to OTM:
4.2.1.1 Product Synchronization

The synchronization flow is described here:

1. Whenever a product is created or updated, Siebel publishes a product application business message (ABM).
2. The Siebel requester ABCS receives this message, transforms the ABM to enterprise business message (EBM), updates the Siebel, and invokes the ItemEBS service.
3. The ItemEBS service routs this message to Oracle Transportation Management (OTM) Provider ABCS.
4. OTM Provider ABCS receives this enterprise business message (EBM), checks if the product type is commodity. If so, it transforms to OTM commodity ABM and invokes the OTM web service. It then waits for the transmission report from OTM.
5. After the transmission report is received, the OTM provider ABCS checks the status. If status is OK, it updates the OTM column in the ITEM_ITEMID cross-reference with the commodity GID.

4.3 Assumptions and Constraints

These are the solution assumptions and constraints:

- This synchronization does not support initial loading of existing data of products.
- No delete transactions exist for product records.
- This integration synchronizes only products of type commodity to the OTM application.
- If any error occurs in the service layer, AIA error handling framework is invoked. You should manually resubmit that transmission at various places that failed for reprocessing.
- This integration does not validate and raise errors due to any business validation failure in OTM. It assumes such validations happen in OTM system.
- This integration supports only synchronization of products whenever a product is created or updated.
■ OTM domain value is derived from business unit mapping. If you want to use your own logic for domain, you must use the extensible transformation template.

■ The provider side cross-references are populated based on the identifiers passed from main transformation to OTM. If you want to pass a different value in the OTM identifier, use the extensibility of the transformation to update the cross-reference.

4.4 Siebel CRM Interfaces

Use the Siebel CRM product schema for this integration.

4.5 OTM Interfaces

OTM provides an interface through a web service to connect to its application. This connectivity is established as a partner link in the provider service. The logistics web service immediately returns an acknowledgment with a transmission number. After processing is complete, it then sends a transmission report back indicating success or failure.

4.6 Core Oracle AIA Components

The integration flow uses these components:

- Item EBO
- Item EBM

The core enterprise business object (EBO) and enterprise business message (EBM) XSD files can be located by EBO within the $AIA_HOME/AIAMetaData/AIAComponents/EnterpriseObjectLibrary/Core/EBO/parent folder.

The core enterprise business services (EBS) web services definition language (WSDL) files can be located by EBO within the $AIA_HOME/AIAMetaData/AIAComponents/EnterpriseBusinessServiceLibrary/Core/EB O/parent folder.

For detailed documentation of individual EBOs and EBMs, click AIA Reference Doc link on EBO and EBM detail pages in the Oracle Enterprise Repository.

For more information about using the Oracle Enterprise Repository and configuring it to provide the AIA Reference Doc link, see Oracle Fusion Middleware Developer’s Guide for Oracle Application Integration Architecture Foundation Pack, "Configuring and Using Oracle Enterprise Repository as the Oracle AIA SOA Repository."

EBOs can be extended, for instance, to add new data elements. These extensions are protected, and remain intact after a patch or an upgrade.

For more information, see Oracle Fusion Middleware Developer’s Guide for Oracle Application Integration Architecture Foundation Pack, "Extensibility for AIA Artifacts."

4.7 Integration Services

These are the services delivered with this integration:

- Siebel Product Queue
- SyncItemSiebelConsumer
4.7.1 Siebel Product Queue

Siebel Product Queue is used to queue Siebel product messages. This queue can reside on any Oracle database. For this integration, the AIA database is used as the place for this queue.

4.7.2 SyncItemSiebelConsumer

This service is invoked the moment Oracle Transportation Management (OTM) enqueues a message into AIA_SiebelItemJMSQueueV1 queue. This service routes and invokes the SyncItemListSiebelReqABCSImpl process.

4.7.3 SyncItemListSiebelReqABCSImpl

The SyncItemListSiebelReqABCSImpl is a BPEL process. This process receives the Siebel Product application business message (ABM) as input from Siebel system, transforms it to the SyncItemListEBM message, and invokes the ItemEBS service. In this transformation, in addition to mapping, the enterprise business message (EBM) Header and the cross-reference tables are populated.

4.7.4 ItemEBS

ItemEBS is the Enterprise Business Service to route all item related operations.

4.7.5 SyncItemListLogisticsProvABCSImpl

SyncItemListLogisticsProvABCSImpl is a BPEL Process. This process receives the SyncItemListEBM as input from the ItemEBS, transforms the input into the LogisticsWebServiceABM and invokes the LogisticsWebService. When logistics sends the transmission report and the status in the transmission report is success, it updates the cross-reference tables with OTM IDs.
This chapter provides an overview of the process integration for query transportation order itinerary and discusses business process flows, assumptions and constraints, Siebel Customer Relationship Management (Siebel CRM) and Oracle Transportation Management (OTM) interfaces, core Oracle Application Integration Architecture (Oracle AIA) components, and integration services.

This chapter includes the following sections:

- Section 5.1, "Overview"
- Section 5.2, "Business Process Flows"
- Section 5.3, "Assumptions and Constraints"
- Section 5.4, "Siebel CRM Interfaces"
- Section 5.5, "OTM Interfaces"
- Section 5.6, "Core Oracle AIA Components"
- Section 5.7, "Integration Services"

5.1 Overview

This integration flow allows Siebel CRM users to query OTM for various itineraries, schedules, and their rates.

In the Siebel CRM transportation order, you can query the ratings based on origin and destination location details, pickup and delivery time, and commodity (to be shipped) details. The corresponding OTM itineraries with details are pulled into Siebel CRM solution view using Oracle AIA. You can select a solution and update the rate upon negotiation with the customer.

5.2 Business Process Flows

This integration flow supports these services:

- QueryTransportationSalesOrderItineraryListSiebelReqABCSImpl
- TransportationSalesOrderEBS
- QueryTransportationSalesOrderItineraryListLogisticsProvABCSImpl
5.2.1 Query Transportation Order Itinerary Process

Query transportation sales order process is a synchronous BPEL process. This process gets the itinerary information and rates from OTM and sends the data to Siebel CRM for order confirmation.

Figure 5–1 Query Transportation Order Itinerary Process

The overall flow is described here:

1. Siebel Application invokes the QueryTransportationSalesOrderItineraryListSiebelReqABCSImpl with the SWIOrderIO application business message (ABM) as an input.

2. If the preprocess ABM property is true in the AIA configuration file, then the QueryTransportationSalesOrderItineraryListSiebelReqABCSImpl service invokes the QueryTransportationSalesOrderSiebelReqABCSImplExt through the PreProcessABM operation as a synchronous process, which accepts and replies with the TransportationSalesOrderSiebelABM message.

3. The TransportationSalesOrderSiebelABM message is transformed to the QueryTransportationSalesOrderItineraryListEBM and the EBMHeader is populated.

4. If the PreProcessEBM property is set to true in the AIA configuration file, the QueryTransportationSalesOrderSiebelReqABCSImplExt is invoked through the PreProcessEBM operation, which is a synchronous process that accepts and replies with the QueryTransportationSalesOrderItineraryListEBM.

5. The QueryTransportationSalesOrderSiebelReqABCSImpl then invokes TransportationSalesOrderEBS.

6. TransportationSalesOrderEBS then in-turn invokes the QueryTransportationSalesOrderItineraryListLogisticsProvABCSImpl.

7. The QueryTransportationSalesOrderItineraryListLogisticsProvABCSImpl then invokes the logistics web service that returns the itineraries and rates.

8. This response is sent to TransportationSalesOrderEBS.

9. The TransportationSalesOrderEBS returns the response to QueryTransportationSalesOrderItineraryListSiebelReqABCSImpl.

10. The QueryTransportationSalesOrderItineraryListSiebelReqABCSImpl returns the response to Siebel after transformation.

5.2.2 Query Transportation Sales Order Itinerary List

Figure 5–2 shows query transportation sales order itinerary list:
5.3 Assumptions and Constraints

Itineraries and rates have been defined within OTM.

- These are the assumptions and constraints:
  - Exchange rates required as part of the rate negotiation are manually set up in Siebel; they are not synchronized as part of this integration.
  - This query requests only sell rates, not buy rates, from OTM.

5.4 Siebel CRM Interfaces

This outbound web service is configured in Siebel CRM for this flow: QueryTransportationSalesOrderItineraryListSiebelReqABCSImpl.

This service takes the SWIOrder as input and returns the SWIOrderEntrySalesIORes or a Fault.

For more information about Siebel CRM web services, navigate to the documentation library for Siebel applications on Oracle Technology Network and see Siebel CRM Web Services Reference.

5.5 OTM Interfaces

OTM provides an interface through a web service to connect to its application. This connectivity is established as a partner link in the provider service. The logistics web service on being called immediately returns a response.

The RIQQuery element in OTM is used to request rate information for the order to be shipped.

For more information about the Logistics Service, see Oracle Transportation Management Integration Guide.
5.6 Core Oracle AIA Components

The integration flow uses these components:

- TransportationSalesOrderEBO
- TransportationSalesOrderEBM

The core enterprise business object (EBO) and enterprise business message (EBM) XSD files can be located by EBO within the $AIA_HOME/AIAMetaData/AIAComponents/EnterpriseObjectLibrary/Core/EBO/ parent folder.

The core enterprise business services (EBS) web services definition language (WSDL) files can be located by EBO within the $AIA_HOME/AIAMetaData/AIAComponents/EnterpriseBusinessServiceLibrary/Core/EB O/ parent folder.

For detailed documentation of individual EBOs and EBMs, click AIA Reference Doc link on EBO and EBM detail pages in the Oracle Enterprise Repository.

For more information about using the Oracle Enterprise Repository and configuring it to provide the AIA Reference Doc link, see Oracle Fusion Middleware Developer’s Guide for Oracle Application Integration Architecture Foundation Pack, “Configuring and Using Oracle Enterprise Repository as the Oracle AIA SOA Repository.”

EBOs can be extended, for instance, to add new data elements. These extensions are protected, and remain intact after a patch or an upgrade.

For more information, see Oracle Fusion Middleware Developer’s Guide for Oracle Application Integration Architecture Foundation Pack, “Extensibility for AIA Artifacts”.

5.7 Integration Services

This integration delivers these services:

- QueryTransportationSalesOrderItineraryListSiebelReqABCSImpl
- TransportationSalesOrderEBS
- QueryTransportationSalesOrderItineraryListLogisticsProvABCSImpl

5.7.1 QueryTransportationSalesOrderItineraryListSiebelReqABCSImpl

This BPEL process receives the TransportationSalesOrderABM as input from the Siebel application, transforms the message to the QueryTransportationSalesOrderEBM, and invokes the TransportationSalesOrderEBS service. After transformation, based on the response, the message is again transformed into Siebel application business message (ABM) and sent to Siebel application.

5.7.2 TransportationSalesOrderEBS

TransportationSalesOrderEBS is an Enterprise Business Service that exposes all the enterprise operations related to the TransportationSalesOrder like create TransportationSalesOrder, update TransportationSalesOrder, delete TransportationSalesOrder, and so on. For this flow, the QueryTransportationSalesOrderItineraryList operation is implemented. It routes the request to the appropriate provider like QueryTransportationSalesOrderItineraryListLogisticsProvABCSImpl or composite application validation system (CAVS) based on the filter condition and operation.
5.7.3 QueryTransportationSalesOrderItineraryListLogisticsProvABCSImpl

This is a synchronous BPEL process. This process accepts a QueryTransportationSalesOrderItineraryListEBM as input from TransportationSalesOrderEBS, transforms this message into TransportationSalesOrderItineraryListOTMABM, and invokes the logistics webservice. This service transforms the LogisticsResponseEBM message to QueryTransportationSalesOrderItineraryListResponseEBM, and sends the message back to TransportationSalesOrderEBS.
This chapter provides an overview of the process integration for transportation orders and discusses business process flows, assumptions and constraints, Siebel Customer Relationship Management (Siebel CRM) and Oracle Transportation Management (OTM) interfaces, core Oracle Application Integration Architecture (Oracle AIA) components, and integration services.

This chapter includes the following sections:

- **Section 6.1, "Overview"**
- **Section 6.2, "Business Process Flows"**
- **Section 6.3, "Assumptions and Constraints"**
- **Section 6.4, "Siebel CRM Interfaces"**
- **Section 6.5, "OTM Interfaces"**
- **Section 6.6, "Core Oracle AIA Components"**
- **Section 6.7, "Integration Services"**

### 6.1 Overview

In the transportation order management solution, transportation orders are created in Siebel CRM application and executed in the OTM application. New or revised orders are synchronized in one direction from Siebel CRM to OTM. Whenever a new transportation order is submitted in Siebel CRM, a real time synchronization flow is initiated to publish it to Oracle AIA. Oracle AIA creates a corresponding order release, and sell shipment in OTM.

### 6.2 Business Process Flows

The process integration for order supports these integration flows:

- Creating an order
- Revising an order (including cancellation)

Each Siebel CRM transportation order includes these components:

- Customers involved: liable, tendering, and invoice to party.
- Locations: The source and destination locations.
- Date-Time: The starting and ending date-time for pickup and delivery.
Stops: The intermediate stops (with their locations) besides the source and destination.

Order Line Items: These four types of products can be associated to order lines:
- Commodities: These are the goods being shipped. No price is associated to commodity line items.
- Transportation: The price for the transportation service.
- Accessorial: Any additional equipment that would be required to fulfill the order, for example, a forklift.
- Special Services: Any additional services to fulfill the order, for example, hand unload.

Actions: These are special services to be performed at any stop. These could be associated to a commodity as well.

The prices of the transportation, accessorial, and special service lines are retrieved from OTM through the order itinerary/rating integration as described in Chapter 5, "Process Integration for Query Transportation Order Itinerary".

Corresponding to a transportation order in Siebel CRM, the Oracle AIA synchronization process creates an order release and a sell shipment in OTM.

The major components of order release synchronized to OTM are:
- Involved Parties: The tendering/liable/invoice-to parties from Siebel order are referenced as involved parties on the OTM release header.
- Locations: The source and destination locations are on order release header. The intermediate stops are mapped to OrStop component of release.
- Date-Time: The pickup and delivery time specified are mapped to timeline in release on the header and the stops.
- Release Lines and ShipUnits: For each Siebel CRM order line with a commodity, a corresponding order release line, and release ship unit are created. For the commodity product in Siebel CRM order line, a packaged item is specified in release line, and a commodity on the release ship unit.
  If any order line commodity is of type Hazardous or High Value, then a special service is also created for it in the release header.
- Special Services: Corresponding to the actions captured in Siebel CRM transportation order, the special services for the origin and destination stops are created in the release header, whereas for the intermediate stops, the special services are created in the release OrStop element.
  In addition, if the commodity order line in Siebel CRM has Actions associated to it, then special service is created for the corresponding release ship unit in OTM.

The major components of sell shipment synchronization to OTM are:
- Involved Parties: The tendering/liable/invoice-to parties in Siebel CRM order are referenced as involved parties on the OTM sell shipment.
- Shipment Costs: The accepted prices for the transportation, accessorial and special service order lines are synchronized to shipment costs.
- Shipment ShipUnits: For each Siebel CRM order line specifying a commodity, a corresponding shipment ShipUnit is created in OTM. For the commodity product in Siebel CRM order line, a packaged item is specified in the shipment ShipUnit.
Assumptions and Constraints

- **Shipment Stops**: A shipment stop is created for every stop specified in Siebel CRM order.

  Figure 6–1 shows the order process integration:

  **Figure 6–1  Order Process Integration Flow**

  ![Order Process Integration Flow Diagram](image)

  This diagram shows that the Siebel CRM application sends all its order messages in a queue. An Oracle AIA service reads that queue, gets the messages, and further sends the message to requester. Inside the requester service, Siebel application business message (ABM) message is transformed to the SyncTransportationSalesOrderListEBM, and then this service sends that EBM to transportation sales order EBS.

  The TransportationSalesOrderEBS routes that SyncTransportationSalesOrderListEBM to OTM provider. Inside the provider, the EBM message is transformed to OTM ABM and that OTM ABM is send to OTM webservice to create or modify the order.

  **6.2.1 Synchronizing Order Information**

  Figure 6–2 shows the incremental changes in the account:

  **Figure 6–2  Synchronizing Order Information Sequence Diagram**

  ![Synchronizing Order Information Sequence Diagram](image)

  **6.3 Assumptions and Constraints**

  These are the assumptions and constraints:

  - This solution does not support initial loading of existing orders.
  - Orders have a status of accepted (or canceled) when they are submitted. Siebel CRM validates this status before any integration services are invoked.
Outbound orders statuses from Siebel CRM are ignored unless canceling the order.

This synchronization does not support delete operations for an order. Use the synchronize operation to create and update orders.

Order process integration creates order release and sell shipment in OTM, but not the buy shipment.

Stop action cross-references cannot be established from the OTM since OTM does not have any equivalent identifier.

The customers, locations, and commodity products used in the transportation order must be synchronized before this order synchronization so that this process can inquire in the cross-reference for their existence.

This integration does not support manual updates to orders in oracle transportation management.

Liable party and the tendering party identifiers derived from Siebel are validated against the cross-references established in the account synchronization.

For the liable party address and tendering party address this integration expects Siebel address identifiers (not location identifiers), and looks up the cross-references established during account synchronization.

In case any error occurs in the service layer and the order message does not reach target application, the Oracle AIA error handling framework is invoked. You should manually resubmit that transmission that failed for reprocessing.

This process integration does not perform any business validation, and thus does not raise errors for business validation failures.

OTM receives order name concatenated with GUID as their ID. OTM domain value is derived from business unit mapping in cross-reference. If you want to use your own logic for deriving the domain, you must use the extensible transformation template.

The OTM specific columns in cross-references are populated based on the identifiers derived from main transformation to OTM. If you want to pass a different value in the OTM identifier, use the transformation’s extensibility to update the cross-reference as well.

The configuration property parameter for response message should be set to true while preparing an enterprise business message (EBM) indicating that the EBM wants a response.

Siebel CRM can send the messages in different languages; OTM can handle only single language. The OTM installation language is captured in the configuration file. If the incoming Siebel CRM message is of any other language that is recorded in the configuration file then that message is not sent to OTM.

The direction of the process is one way from Siebel CRM to OTM.

TRANSPORTATIONSALEORDER_ORDERLINEITEMPROPERTY DVM is a seeded DVM for name value pair attributes for transportation product and Commodity. Any alteration to the seeded content causes the transformation to fail; however new records can be added.

6.4 Siebel CRM Interfaces

Use the Order schema for this integration. The interface required for updating the order in Siebel is Siebel order web services definition language (WSDL).
For more information about Siebel CRM web services, navigate to the documentation library for Siebel applications on Oracle Technology Network and see Siebel CRM Web Services Reference.

6.5 OTM Interfaces

The OTM application provides an interface through a webservice to connect to its application. This connectivity is established as a partner link in the provider service. The logistics webservice immediately returns an acknowledgment with a transmission number when called and sends a transmission report back indicating the success or the failure when the process completes.

For more information about the Logistics Service, see Oracle Transportation Management Integration Guide.

6.6 Core Oracle AIA Components

The integration flow uses these components:

- TransportationSalesOrderEBO
- SyncTransportationSalesOrderListEBM

The core enterprise business object (EBO) and enterprise business message (EBM) XSD files can be located by EBO within the $AIA_HOME/AIAMetaData/AIAComponents/EnterpriseObjectLibrary/Core/EBO/parent folder.

The core enterprise business services (EBS) web services definition language (WSDL) files can be located by EBO within the $AIA_HOME/AIAMetaData/AIAComponents/EnterpriseBusinessServiceLibrary/Core/EBO/parent folder.

For detailed documentation of individual EBOs and EBMs, click AIA Reference Doc link on EBO and EBM detail pages in the Oracle Enterprise Repository.

For more information about using the Oracle Enterprise Repository and configuring it to provide the AIA Reference Doc link, see Oracle Fusion Middleware Developer’s Guide for Oracle Application Integration Architecture Foundation Pack, "Configuring and Using Oracle Enterprise Repository as the Oracle AIA SOA Repository."

EBOs can be extended, for instance, to add new data elements. These extensions are protected, and remain intact after a patch or an upgrade.

For more information, see Oracle Fusion Middleware Developer’s Guide for Oracle Application Integration Architecture Foundation Pack, "Extensibility for AIA Artifacts".

6.7 Integration Services

This integration delivers these services:

- AIA Transportation Sales Order Queue
- TransportationSalesOrderListSiebelConsumer
- SyncTransportationSalesOrderListSiebelReqABCSImpl
- TransportationSalesOrderEBS
- TransportationSalesOrderResponseEBS
- SyncTransportationSalesOrderListLogisticsProvABCSImpl
6.7.1 AIA Transportation Sales Order Queue

This transportation sales order queue is used to queue Siebel order messages. This is an AQ. This queue can reside any oracle database. For this integration, AIA database is used as the place for this queue. The queue name is AIA_
SiebelTransportationSalesOrderJMSQueue.

6.7.2 TransportationSalesOrderListSiebelConsumer

TransportationSalesOrderListSiebelConsumer is the consumer to the queue that is invoked when OTM places a message into the AIA_
SiebelTransportationSalesOrderJMSQueue queue. This service routes and invokes SyncTransportationSalesOrderListSiebelReqABCSImpl service.

6.7.3 SyncTransportationSalesOrderListSiebelReqABCSImpl

SyncTransportationSalesOrderListSiebelReqABCSImpl is a BPEL process. This process receives Siebel application business message (ABM) as an input from Siebel system and transforms the message to SyncTransportationSalesOrderListEBM. During this transformation, Siebel ABM is transformed to SyncTransportationSalesOrderListEBM and enterprise business message (EBM) Header and cross-reference tables are populated. This process invokes TransportationSalesOrderEBS with SyncTransportationSalesOrderListEBM as an input. This process then waits for the response back from the TransportationSalesOrderResponseEBS. Based on the response received this service updates the Siebel application indicating whether the order synchronized or failed.

6.7.4 TransportationSalesOrderEBS

TransportationSalesOrderEBS is an Enterprise Business Service. This service is used to route all transportation sales order related actions like CreateTransportationSalesOrder, QueryTransportationSalesOrder, SyncTransportationSalesOrderList, and UpdateTransportationSalesOrder, and so on.

6.7.5 TransportationSalesOrderResponseEBS

TransportationSalesOrderResponseEBS is the Enterprise Business Service. This service is used to route all transportation sales order response actions like CreateTransportationSalesOrderResponse, QueryTransportationSalesOrderResponse, SyncTransportationSalesOrderListResponse, UpdateTransportationSalesOrderResponse, and so on.

6.7.6 SyncTransportationSalesOrderListLogisticsProvABCSImpl

SyncTransportationSalesOrderListLogisticsProvABCSImpl is a BPEL process. This process receives SyncTransportationSalesOrderListEBM as a request from TransportationSalesOrderEBS and returns a response to TransportationSalesOrderResponseEBS. This service transforms the EBM to Oracle Transportation Management (OTM) ABM and invokes the logistics webservice using the OTM ABM. At the end the cross-reference table is updated with OTM data. Then a response message is prepared and sent back to TransportationSalesOrderResponseEBS.
This chapter provides an overview of the process integration for order status and discusses business process flows, assumptions and constraints, Siebel Customer Relationship Management (Siebel CRM) and Oracle Transportation Management (OTM) interfaces, core Oracle Application Integration Architecture (Oracle AIA) components, and integration services.

This chapter includes the following sections:

- Section 7.1, "Overview"
- Section 7.2, "Business Process Flows"
- Section 7.3, "Assumptions and Constraints"
- Section 7.4, "Siebel CRM Interfaces"
- Section 7.5, "OTM Interfaces"
- Section 7.6, "Core Oracle AIA Components"
- Section 7.7, "Integration Services"

### 7.1 Overview

When order release and shipments (both buy and sell) are executed in OTM, the status of the shipment changes in OTM. Also, as shipments at various stops get picked-up or delivered, their actual time is updated in OTM.

OTM publishes these messages to AIA using automation agents, as configured, to synchronize the information to Siebel so that the customer service representative (CSR)/sales agent can communicate these to the customers:

- Order status
- Actual time of pickup and delivery at the stops.

### 7.2 Business Process Flows

Figure 7–1 shows the order status process integration:
This integration assumes that the OTM application business message (ABM) is sent in a queue inside OTM. A consumer service in Oracle AIA reads that message and calls the requester service. Requester service transforms the OTM ABM to the UpdateTransportationSalesOrderListEBM, and then the enterprise business message (EBM) is routed to the TransportationSaleOrderEBS. TransportationSaleOrderEBS service routes that UpdateTransportationSalesOrderListEBM to Siebel CRM provider. Inside the Siebel CRM provider this message is transformed into Siebel ABM and a Siebel CRM webservice is called to update the Siebel CRM order.

7.2.1 Integration Flow

Figure 7–2 shows the order status update flow:

7.3 Assumptions and Constraints

These are the assumptions and constraints:

- The order status integration only supports updating of order status in the header level, and date time elements at the stop level. No other data elements are updated in this flow.
- Header level statuses are sent from OTM to Siebel CRM. For stop level, only the date time values are sent, Siebel derives the statuses on stop level and any other levels within the application.
- A buy shipment in OTM is necessary to have the status message. Order synchronization flow does not create a buy shipment automatically. The order synchronization flows create the order release, and the sell shipment; you must generate buy shipments in OTM using agent configuration or manually.
- For Siebel, assigned and moving statuses message comes from OTM buy shipment, whereas the billed status the message comes from sell shipment.
The agents required in OTM to send out the messages from buy or sell shipment must be defined.

This integration does not perform any business validation and thus does not raise errors for business validation issues.

In case of multi-leg itinerary in Siebel CRM order, there are multiple buy shipments in OTM. Corresponding to each buy shipment, the same order status in Siebel iterates through assigned and moving values.

When the buy shipment is created in OTM for the order status message, you should copy all the reference numbers from the sell shipment.

In case any error occurs and the message does not reach the target application, the Oracle AIA error handling framework notifies you. You should manually re-submit that transmission that failed for re-processing.

OTM continues to send the message into an Oracle AQ. SOA suite AQ adapter dequeues those messages in the Oracle AIA layer.

Requests are made from OTM in fire and forget mode. Hence, OTM does not wait for the response from Siebel.

OTM uses AQ mechanism to en-queue the outbound shipment messages. The queue is created within OTM application.

Inbound Siebel webservice requires a user id and password to supply as part of the end point URL.

### 7.4 Siebel CRM Interfaces

The Siebel CRM interfaces are:

- The Siebel ABM used for this integration is the Siebel CRM fleet order schema.
- The interface that is required for updating the order in Siebel CRM is the Siebel Order web services definition language (WSDL).

For more information about Siebel CRM web services, navigate to the documentation library for Siebel applications on Oracle Technology Network and see *Siebel CRM Web Services Reference*.

### 7.5 OTM Interfaces

OTM publishes the shipment application business message (ABM) message in AQ. The element in OTM schema that is used in this process is PlannedShipment. This is the only OTM interface used in this process.

### 7.6 Core Oracle AIA Components

The integration flow uses these components:

- TransportationSalesOrderEBO
- UpdateTransportationSalesOrderListEBM

The core enterprise business object (EBO) and enterprise business message (EBM) XSD files can be located by EBO within the $AIA_HOME/AIAMetaData/AIAComponents/EnterpriseObjectLibrary/Core/EBO/parent folder.
The core enterprise business services (EBS) web services definition language (WSDL) files can be located by EBO within the $AIA_HOME/AIAMetaData/AIAComponents/EnterpriseBusinessServiceLibrary/Core/EO parent folder.

For detailed documentation of individual EBOs and EBMs, click AIA Reference Doc link on EBO and EBM detail pages in the Oracle Enterprise Repository.

For more information about using the Oracle Enterprise Repository and configuring it to provide the AIA Reference Doc link, see Oracle Fusion Middleware Developer’s Guide for Oracle Application Integration Architecture Foundation Pack, “Configuring and Using Oracle Enterprise Repository as the Oracle AIA SOA Repository.”

EBOs can be extended, for instance, to add new data elements. These extensions are protected, and remain intact after a patch or an upgrade.

For more information, see Oracle Fusion Middleware Developer’s Guide for Oracle Application Integration Architecture Foundation Pack, “Extensibility for AIA Artifacts”

### 7.7 Integration Services

These are the services delivered with this integration:

- UpdateTransportationSalesOrderListLogisticsReqABCS Impl
- TransportationSalesOrderEBS
- TransportationSalesOrderResponseEBS
- UpdateTransportationSalesOrderListSiebelProvABCS Impl
- UpdatePlannedShipmentLogisticsAQConsumer

#### 7.7.1 UpdateTransportationSalesOrderListLogisticsReqABCS Impl

UpdateTransportationSalesOrderListLogisticsReqABCS Impl is a BPEL process. This process receives logistics ABM as input from OTM. This message is transformed to UpdateTransportationSalesOrderListEBM message and TransportationSalesOrderEBS service is invoked.

#### 7.7.2 TransportationSalesOrderEBS

TransportationSalesOrderEBS is an Enterprise Business Service and is used to create, query, synchronize, and update all transportation sales orders.

#### 7.7.3 TransportationSalesOrderResponseEBS

TransportationSalesOrderResponseEBS is the Enterprise Business Service and is used to create, query, synchronize, and update all the transportation sales order responses.

#### 7.7.4 UpdateTransportationSalesOrderListSiebelProvABCS Impl

UpdateTransportationSalesOrderListSiebelProvABCS Impl is a BPEL process. This process receives the UpdateTransportationSalesOrderListEBM message from TransportationSalesOrderEBS and transformed to Siebel Order ABM. The Siebel webservice updates the order status in Siebel system and returns a success or failure message to the calling service.
7.7.5 UpdatePlannedShipmentLogisticsAQConsumer

This service is invoked the moment OTM enqueues a shipment message into AIA_TRANSPORTATIONSALESORDER_AQ queue. This service takes the xml element from the wrapper AQ schema, which contains the entire transmission element as CLOB. This service is designed using ORACLE MEDIATOR and hence it simply routes and invokes UpdateTransportationSalesOrderListLogisticsReqABCSImpl.
Part II
Configuring the Delivered Process Integrations

This part contains the following chapters:

- Chapter 8, "Setting Up Participating Applications"
- Chapter 9, "Data Requirements and Prerequisites"
- Chapter 10, "Working with Cross-References"
- Chapter 11, "Working with Domain Value Maps"
- Chapter 12, "Configuring Oracle Order Management Integration Pack for OTM, Oracle EBS, and Siebel CRM"
This chapter provides information about how to set up Oracle E-Business Suite (oracle EBS), Siebel Customer Relationship Management (Siebel CRM) and Oracle Transportation Management (OTM). This includes creating system profiles and setting up cross-references.

This chapter includes the following sections:

- Section 8.1, "Setting Up Oracle EBS"
- Section 8.2, "Setting Up Siebel CRM"
- Section 8.3, "Setting Up OTM"
- Section 8.4, "Creating Oracle EBS System Profiles"
- Section 8.5, "Setting Up Cross-References for Siebel IDs, Oracle EBS Entities, and OTM Domains"
- Section 8.6, "Setting Up Cross-References for Accessorial and Special Services Products"

### 8.1 Setting Up Oracle EBS

You must determine what organizations you want to support and then get the IDs for those organizations.

**To get the Operating Unit details:**

1. Log in to Oracle E-Business Suite database.
2. Identify the Operating Units that must be synchronized or maintained in Oracle E-Business Suite.
   
   If you want to pick other Operating Units, use this query:
   ```sql
   select organization_id, name from hr_operating_units
   ```

### 8.2 Setting Up Siebel CRM

**To map Siebel Organizations to EBS Operating Units:**

1. Log in to Siebel Application.
2. Click Site Map.
3. Select Administration - Group, Organizations.
4. For the Oracle E-Business Suite Operating Units that were identified previously, create the same in Siebel CRM. See Figure 8–1.

Figure 8–1 Administration - Group View Tab in Siebel

8.3 Setting Up OTM

Setting up OTM includes the following tasks:

■ Determine what domains in OTM must be supported
■ Determine what StatusType in Oracle Transportation Management (OTM) is required, for example, CUSTOMERPARTYSTATUS
■ Create external systems for all inbound flows to OTM.
■ Set up external systems for queues

To get the domain details:
1. Log in to OTM application.
2. Navigate to Configuration and Administration.
3. Click Domain Management.
4. Select Domain Settings and click Search. Figure 8–2 shows the screen that appears with domain setup:
To create a StatusType:
1. Log in to OTM application.
2. Navigate to Configuration and Administration.
3. Click the New button.
4. Enter a Status Type ID, for example, CUSTOMERTYPESTATUS.
5. Select LOCATION as the Object Type.
6. Enter Sequence 1.
7. Enter two rows: ACTIVE and INACTIVE.
8. Check the initial value for the ACTIVE row:

To create external systems for all inbound flows to OTM:
Table 8–1 lists the processes involved in creating external systems for all inbound flows to OTM.

<table>
<thead>
<tr>
<th>Process Name</th>
<th>External System ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>SyncCustomerPartyListLogisticsProvABCSImpl</td>
<td>CUSTOMERTYPE_ESID</td>
</tr>
</tbody>
</table>

Figure 8–2 Domain Setting Screen

Figure 8–3 Status Type Screen
1. Log in to Oracle Enterprise Manager Fusion Middleware Control.
2. Click the desired process.
3. Click Show WSDL and endpoint URI icon.

**Figure 8–4 Creating Contacts**

4. Click Concrete WSDL URI and add \texttt{style="document"} attribute to \texttt{soap:binding}.
5. Save the source on your local system.
6. Log in to OTM.
9. Click Document Detail.
   Enter name for ID.
   Upload the saved concrete WSDL.
   Ensure Storage is set to Text and Mime Type as text/xml.
10. Click Finished.
11. Click Service Details.
   Enter Service ID, Service Endpoint ID
   Enter Service Endpoint as Endpoint URI as depicted in the screen. See: Section 8.3, "Setting Up OTM".

---

**Table 8–1 (Cont.) Processes for Creating External Systems for Inbound Flows to OTM**

<table>
<thead>
<tr>
<th>Process Name</th>
<th>External System ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>SyncItemListLogisticsProvABCSImpl</td>
<td>ITEM_ESID</td>
</tr>
<tr>
<td>SyncTransportationSalesOrderListLogisticsProvABCSImpl</td>
<td>ORDER_ESID</td>
</tr>
<tr>
<td>SyncTransportationStopListLogisticsProvABCSImpl</td>
<td>TRANSPORTATIONSTOP_ESID</td>
</tr>
</tbody>
</table>

Note: External System IDs and their corresponding processes are in the AIAConfigurationProperties.xml file.
Enter username and password of your weblogic server.

**Note:** For Oracle Transportation Management (OTM) versions earlier than 6.1.2 encrypt the password before entering using Base64 encoding.

12. Click **Finished**.


14. Click **New**.
   
   a. Enter value for **External System ID**. See: Section 8.3, "Setting Up OTM" for these values.
   
   b. Select the web service created previously.
   
   c. Select **Operation as TransmissionReport**.
   
   d. Select the Service Endpoint created earlier.

15. Click **Finished**.

Doing these steps creates a contact automatically in Oracle Transportation Management (OTM) with the same name as of External System ID.

To verify, go to **Business Process Automation, Communication Management, Contacts**.

**Note:** Update OTM_01.Contact_Domain Property in AIAConfigurationProperties.xml for each process with the domain in which External System is created for the corresponding process.

For more information about Oracle Transportation Management, refer *Oracle Transportation Management User Guide*.

**To setup external systems for queues**

1. Login to OTM.

2. Go to **Business Process Automation, Communication Management, External Systems**.

3. Click **New**.

4. Enter **External System ID** as *AIA_PLANNEDSHIEMENT_AQ* and add a description.

5. Enter the **Queue Name** as *AIA_PLANNEDSHIEMENT_AQ* under the **For Queue** section.
6. In the Out XML Profiles section, click 'n' for New XML profile.
7. Enter Out XML Profile ID as MAX.
8. Choose Default Mode as MAX.
   Keep Validate for Max check box unchecked.
9. Click Finished.
10. In the Out XML Profiles section, choose the XML Element ID as PlannedShipment.
11. Click Save.
8.4 Creating Oracle EBS System Profiles

You set specific profile options for the customer process integrations in Oracle EBS.

To set specific profile options for the Customer Management integration:
1. Log in to Oracle E-Business Suite using the System Administrator responsibility.
2. Open the System Profile Values form.
3. Query these profile options and set the indicated values at the site level:
   - HZ: Generate Party Number to Yes
   - HZ: Generate Party Site Number to Yes

8.5 Setting Up Cross-References for Siebel IDs, Oracle EBS Entities, and OTM Domains

Cross-references can be created after organizations have been created in Siebel CRM, operating unit in Oracle EBS, and domain in OTM. Complete the following tasks:
1. Identify Siebel row Ids
2. Identify Oracle EBS entities
3. Populate cross-references

To set up a cross-reference:
1. Log in to the Siebel database as the table owner.
2. Run this query to get the IDs for the organizations created in the previous step:
   ```sql
   select row_id, name from s_org_ext where name like '%Vision%'
   ```

To get the operating unit details:
1. Log in to Oracle EBS database (Apps/Apps).
2. Identify the operating units that must be synchronized or maintained in Oracle EBS.
3. Log in to Oracle Applications and get the exact name for the operating units. For example:
   1. Vision Operations (204)
   2. Vision Germany (888)
4. To pick other operating units, use this query:
   ```sql
   select organization_id, name from hr_operating_units
   ```

To populate Cross reference values for ORGANIZATION_ID table:
1. Log in to database.
2. Connect to schema <AIA_INSTANCE>_xref.
3. Enter values into cross-reference table using the insert command. See Example 8–1.
8.6 Setting Up Cross-References for Accessorial and Special Services Products

Cross-references must be manually maintained for accessorial and special service products that are part of the Orders. Complete the following tasks:

- Identify Siebel row IDs
- Identify cross-reference row number
- Create the accessorial and special services in OTM
- Populate cross-references

To set up a cross-reference:

1. Log in to the Siebel application.
2. Navigate to the Accessorial Product created in Siebel through Administration - Product.
3. Click the product and then Menu, About Record; the system displays a Row # label. This label is the Row ID of the Accessorial Product in Siebel.
4. In the same manner, the row ID can be determined for the Special Service product.

To get the row number for the equivalent product ID in Siebel:

1. Log in to AIA XREF database (aia/aia).
2. Identify the cross-reference row number of the accessorial or special service product maintained in Siebel by executing this query:

   ```sql
   select row_number from xref_data where value = '<SIEBEL ROW ID>' and xref_table_name = 'ormds:/apps/AIAMetaData/xref/ITEM_ITEMID.xref'
   ```

3. To pick other row_number, repeat the above query with appropriate value for the Siebel row ID.

For more information about creating the cross-references, see Oracle Fusion Middleware Developer's Guide for Oracle SOA Suite, "Working with Cross References".
To create the accessorials and special services in OTM:
For more information about creating the accessorials and specials, see Oracle Transportation Management Guide.

To populate cross-references:
1. Log in to the AIA XREF database (aia/aia).
2. Create the corresponding entries for the Oracle Transportation Management (OTM) in XREF table. Siebel and COMMON entries would be available in the XREF table.
3. Create the corresponding OTM entries in XREF manually. Run the query in Example 8–2 to insert the cross-reference values for the accessorials created in OTM.

Example 8–2  Query to Create OTM Entries in XREF
insert into xref_data values ('oramds:/apps/AIAMetaData/xref/ITEM_ITEMID.xref','ACCCESSORIAL_OTM_01',<row number found in the section Identifying XREF Section>,<OTM DOMAIN::otm accessorial product>,'N','17-SEP-10 02.26.11.000000000 AM')

Example 8–3 is the query used to enter the accessorrial item Forklift present in the GUEST domain in OTM.

Example 8–3  Query to Enter Forklift Item
insert into xref_data values ('oramds:/apps/AIAMetaData/xref/ITEM_ITEMID.xref','ACCCESSORIAL_OTM_01',F40CCE8024C911DE8F559994B8D73F6F,'GUEST::Forklift','N','17-SEP-10 02.26.11.000000000 AM')

For more information about creating the cross-references, see Oracle Fusion Middleware Developer’s Guide for Oracle SOA Suite, "Working with Cross References".

4. Run the query in Example 8–4 to insert the cross-reference values for the special services created in OTM.

Example 8–4  Query to Insert the Cross-Reference Values for Special Services
insert into xref_data values ('oramds:/apps/AIAMetaData/xref/ITEM_ITEMID.xref','SPECIALSERVICE_OTM_01',<row number found in the section Identifying XREF Section>,<OTM DOMAIN::otm Special service product id>,'N','17-SEP-10 02.26.11.000000000 AM')

Example 8–5 is the query used to enter the special service Customer Unload present in the GUEST domain in Oracle Transportation Management (OTM).

Example 8–5  Query to Enter Customer Upload Special Service
insert into xref_data values ('oramds:/apps/AIAMetaData/xref/ITEM_ITEMID.xref','SPECIALSERVICE_OTM_01',F40CCE8024C911DE8F559994B8D73F6F,'GUEST::Customer Unload','N','17-SEP-10 02.26.11.000000000 AM')
Data Requirements and Prerequisites

This chapter discusses data requirements and prerequisites for Oracle Order Management for Oracle Transportation Management (OTM), Oracle E-Business Suite (Oracle EBS) and Siebel Customer Relationship Management (Siebel CRM) integrations.

This chapter includes the following sections:

- Section 9.1, "Customer Integration"
- Section 9.2, "Location Integration"
- Section 9.3, "Order Integration"
- Section 9.4, "Order Status Integration"
- Section 9.5, "Product Integration"
- Section 9.6, "Query Transportation Order Itinerary Integration"

9.1 Customer Integration

As a prerequisite, the customer management process integration is not dependent on other processes being run; however, the organization cross-reference must be set up first. See Chapter 10, "Working with Cross-References".

The data requirements for customer process integration are:

- The business units being used must be seeded in all applications and in cross-references.
- Address is required to create an account in Oracle EBS
- The address must have Address Line 1, City, State, Country, and Zip Code.

9.2 Location Integration

As a prerequisite, before synchronizing a location, you must synchronize the corresponding parent account to OTM.

9.3 Order Integration

The prerequisites are:

- Customer Synchronization. See: Chapter 2, "Process Integration for Customers".
- Location Synchronization. See: Chapter 3, "Process Integration for Location".
- Product Synchronization. See: Chapter 4, "Process Integration for Product".
The data requirements are:

- The customers, locations, and commodity products used in the transportation order must be synchronized before submitting the Order.
- The Verify button can be used in the Siebel CRM transportation sales order to validate that all the data has been appropriately populated.
- Order validation processes are successfully executed before the start of the transportation order integration flow.
- The order rating must be done to determine a rating solution for the transportation order to be submitted.

### 9.4 Order Status Integration

The prerequisites are:

- In OTM an external system must be defined for element PlannedShipment for the OTM outbound messages to be published.
- Automation agents must be defined in OTM to listen for certain events and trigger the planned shipment out of OTM upon this event taking place, or when the dates or defined statuses are updated on the buy shipment, and to send the Sell Shipment out when its status is set to BILLED_APPROVED.
- The cross-references for the order header and lines are established through order synchronization before this flow.

The data requirements are:

- A buy shipment in OTM is necessary to provide the assigned and moving status values to Siebel.
- A sell shipment has to be invoiced in OTM to send the billed status to Siebel CRM.

### 9.5 Product Integration

This integration has no specific requirements.

### 9.6 Query Transportation Order Itinerary Integration

The prerequisites are:

- Location synchronization. See: Chapter 3, "Process Integration for Location".

**Note:** If the location is used as an origin and destination, then the role type is mandatory in OTM.

- Product synchronization. See: Chapter 4, "Process Integration for Product".

For the rating query to get the appropriate data from OTM the origin and destination location, earliest pickup time, and latest delivery time for the order should be included. In addition, you must provide commodity to be shipped, number of units to be shipped, weight, and volume.
Cross-references map and connect the records within the application network, and enable these applications to communicate in the same language. The integration server stores the relationship in a persistent way so that others can refer to it.

This chapter includes the following section:

- Section 10.1, "Oracle Order Management Cross-References"

For more information about cross-references, see Oracle Fusion Middleware Developer’s Guide for Oracle Application Integration Architecture Foundation Pack.

### 10.1 Oracle Order Management Cross-References

Table 10–1 lists the Oracle Order Management cross-references:

<table>
<thead>
<tr>
<th>Name</th>
<th>Columns</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSTOMERPARTY_</td>
<td>SEBL_01, COMMON, OTM_01, EBIZ_01</td>
<td>BillToPartyReference/AccountID</td>
</tr>
<tr>
<td>ACCOUNTID</td>
<td></td>
<td>Common column value is a GUID generated by BPEL. OTM column value is concatenation of Domain and OTM Identifier with &quot;::&quot; separating them.</td>
</tr>
<tr>
<td>ADDRESSID</td>
<td>SEBL_01, COMMON, OTM_01, EBIZ_01</td>
<td>BillToPartyReference/Address</td>
</tr>
<tr>
<td>CUSTOMERPARTY_</td>
<td>SEBL_01, COMMON, OTM_01, EBIZ_01</td>
<td>Common column value is a GUID generated by BPEL. OTM column value is concatenation of Domain and OTM Identifier with &quot;::&quot; separating them.</td>
</tr>
<tr>
<td>CONTACT_</td>
<td>SEBL_01, COMMON, OTM_01, EBIZ_01</td>
<td>Common column value is a GUID generated by BPEL. OTM column value is concatenation of Domain and OTM Identifier with &quot;::&quot; separating them.</td>
</tr>
<tr>
<td>EMAILCOMMID</td>
<td></td>
<td>Common column value is a GUID generated by BPEL. OTM column value is concatenation of Domain and OTM Identifier with &quot;::&quot; separating them.</td>
</tr>
<tr>
<td>CUSTOMERPARTY_</td>
<td>SEBL_01, COMMON, OTM_01, EBIZ_01</td>
<td>Common column value is a GUID generated by BPEL. OTM column value is concatenation of Domain and OTM Identifier with &quot;::&quot; separating them.</td>
</tr>
<tr>
<td>CONTACT_</td>
<td>SEBL_01, COMMON, OTM_01, EBIZ_01</td>
<td>Common column value is a GUID generated by BPEL. OTM column value is concatenation of Domain and OTM Identifier with &quot;::&quot; separating them.</td>
</tr>
<tr>
<td>PHONECOMMID</td>
<td></td>
<td>Common column value is a GUID generated by BPEL. OTM column value is concatenation of Domain and OTM Identifier with &quot;::&quot; separating them.</td>
</tr>
<tr>
<td>CUSTOMERPARTY_</td>
<td>SEBL_01, COMMON, OTM_01, EBIZ_01</td>
<td>Common column value is a GUID generated by BPEL. OTM column value is concatenation of Domain and OTM Identifier with &quot;::&quot; separating them.</td>
</tr>
<tr>
<td>CONTACTID</td>
<td></td>
<td>Common column value is a GUID generated by BPEL. OTM column value is concatenation of Domain and OTM Identifier with &quot;::&quot; separating them.</td>
</tr>
<tr>
<td>CUSTOMERPARTY_</td>
<td>SEBL_01, COMMON, OTM_01, EBIZ_01</td>
<td>Common column value is a GUID generated by BPEL. OTM column value is concatenation of Domain and OTM Identifier with &quot;::&quot; separating them.</td>
</tr>
<tr>
<td>LOCATIONREFID</td>
<td></td>
<td>Common column value is a GUID generated by BPEL. OTM column value is concatenation of Domain and OTM Identifier with &quot;::&quot; separating them.</td>
</tr>
<tr>
<td>PARTYID</td>
<td></td>
<td>Common column value is a GUID generated by BPEL. Oracle Transportation Management (OTM) column value is concatenation of Domain and OTM Identifier with &quot;::&quot; separating them.</td>
</tr>
</tbody>
</table>
### Table 10–1 (Cont.) Order Management Cross-References

<table>
<thead>
<tr>
<th>Name</th>
<th>Columns</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM_ID</td>
<td>SEBL_01, COMMON, OTM_01, ACCESSORIAL_OTM_01, SPECIALSERVICE_OTM_01</td>
<td>Concatenation of DomainName and CommodityXID for OTM_01. Siebel ROW ID for SEBL_01</td>
</tr>
<tr>
<td>ORGANIZATION_ID</td>
<td>SEBL_01, COMMON, OTM_01, EBIZ_01</td>
<td>This XREF is used to map the Siebel ORG_UNIT to Oracle Transportation Management (OTM) Domain and Oracle E-Business Suite ORG_UNIT</td>
</tr>
<tr>
<td>ORGANIZATION_ID</td>
<td>/</td>
<td>Location/LocationGID/GID/DomainName</td>
</tr>
<tr>
<td>TRANSPORTATIONS</td>
<td>SEBL_01, COMMON, OTM_01_RELEASE, OTM_01_SHIPMENT</td>
<td>Order Line cross-reference Siebel LineID is populated in the SEBL_01, Common is GUID generated by BPEL. Cross-reference value for OTM columns is concatenation of OTM Domain name, hard coded string TSOL, and the corresponding COMMON column GUID value</td>
</tr>
<tr>
<td>ALESORDER_ID</td>
<td>SEBL_01, COMMON, OTM_01_RELEASE, OTM_01_SHIPMENT</td>
<td>To determine the Siebel Order Id based on Common or Oracle Transportation Management (OTM) Release ID. This is used only for look up purpose.</td>
</tr>
<tr>
<td>ALESORDER_LINEID</td>
<td>SEBL_01, COMMON, OTM_01_RELLINE, OTM_01_RELSHIPUNIT, OTM_01_SELLSHIPUNIT</td>
<td>Order Line cross-reference Siebel LineID is populated in the SEBL_01, Common is GUID generated by BPEL. Cross-reference value for OTM columns is concatenation of OTM Domain name, hard coded string TSOL, and the corresponding COMMON column GUID value</td>
</tr>
<tr>
<td>ALESORDER_STOPACTIONID</td>
<td>SEBL_01, COMMON, OTM_01_RELEASE</td>
<td>Stop Action Cross-reference Siebel StopActionID is populated in the SEBL_01, Common is GUID generated by BPEL. No value for OTM column is populated.</td>
</tr>
<tr>
<td>ALESORDER_STOPID</td>
<td>SEBL_01, COMMON, OTM_01_RELEASE, OTM_01_SHIPMENT</td>
<td>Order Stop cross-reference Siebel StopID is populated in the SEBL_01, Common is GUID generated by BPEL. Cross-reference value for OTM columns is concatenation of OTM Domain name, hard coded string TSOS, and the corresponding COMMON column GUID value</td>
</tr>
<tr>
<td>ALESORDER_STOPID</td>
<td>SEBL_01, COMMON, OTM_01_RELEASE, OTM_01_SHIPMENT</td>
<td>This is used only for look up purpose</td>
</tr>
<tr>
<td>ALESORDER_STOPID</td>
<td>SEBL_01, COMMON, OTM_01_RELEASE, OTM_01_SHIPMENT</td>
<td>Line and Stop association cross-reference Siebel Line Stop ID is populated in the SEBL_01, Common is a GUID generated by BPEL. Cross-reference value for OTM columns is concatenation of OTM Domain name, hard coded string TSOS, and the corresponding COMMON column GUID value</td>
</tr>
<tr>
<td>TOP_ACCOUNTID</td>
<td>SEBL_01, COMMON, OTM_01</td>
<td>Common is GUID generated by BPEL. Cross-reference value for OTM is TransportationStopCustomerParty/Identification/ApplicationObjectID</td>
</tr>
<tr>
<td>TOP_CONTACTID</td>
<td>SEBL_01, COMMON, OTM_01</td>
<td>Common is GUID generated by BPEL. Cross-reference value for OTM is Location/ContactGid/Gid.</td>
</tr>
<tr>
<td>TOP_ID</td>
<td>SEBL_01, COMMON, OTM_01</td>
<td>Common is GUID generated by BPEL. Cross-reference value for OTM is concatenation of /LocationGID/GID/DomainName &amp; LocationGID/GID/Xid</td>
</tr>
<tr>
<td>TOP_ID</td>
<td>SEBL_01, COMMON, OTM_01</td>
<td>This is used only for look up purpose.</td>
</tr>
<tr>
<td>TOP_ROLEID</td>
<td>SEBL_01, COMMON, OTM_01</td>
<td>TransportationStopUsage/Identification/ApplicationObjectID</td>
</tr>
</tbody>
</table>
Domain value maps (DVMs) are a standard feature of the Oracle Service-Oriented Architecture (Oracle SOA) suite. They are tables containing mapping between related information in the participating applications. They enable you to equate lookup codes and other static values across applications, for example, FOOT and FT or US and USA. These DVM tables are maintained in the AIA layer. The AIA layer uses these DVM tables in transforming the messages from one system in the expected format of the other system.

This chapter includes the following section:

- **Section 11.1, "Process Flows DVMs"

For more information about DVMs, see *Oracle Fusion Middleware Developer’s Guide for Oracle Application Integration Architecture Foundation Pack*, "Working with Message Transformations" and *Oracle Fusion Middleware Developer’s Guide for Oracle SOA Suite*, "Working with Domain Value Maps."

### 11.1 Process Flows DVMs

This section provides a listing of all the DVMs for each of the Oracle Order Management Integration Pack for Oracle Transportation Management, Oracle E-Business Suite, and Siebel CRM process flows.

**Table 11–1 lists the DVMs for the customer process flow.**

<table>
<thead>
<tr>
<th>Name</th>
<th>Columns</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDRESS_COUNTRYID</td>
<td>COMMON, Siebel, OTM_01</td>
<td>/</td>
</tr>
<tr>
<td>COMMUNICATION_METHOD</td>
<td>COMMON, OTM_01</td>
<td>Fax, Phone, and so on</td>
</tr>
<tr>
<td>CONTACT_SALUTATION</td>
<td>COMMON, Siebel, OTM_01</td>
<td>Mr., Mrs., and so on</td>
</tr>
<tr>
<td>LOCATION_ROLE</td>
<td>COMMON, OTM_01</td>
<td>Ship To, Bill To, and so on</td>
</tr>
<tr>
<td>STATE</td>
<td>COMMON, Siebel, OTM_01</td>
<td>State code</td>
</tr>
</tbody>
</table>

**Note:** Customer flow reuses some components from Oracle Customer Master Data Management Integration, which use some more DVMs.
For more information about the Customer MDM components and DVMs being used by those components, refer Oracle Customer Master Data Management Integration - Implementation Guide.

Table 11–2 lists the DVMs for the location process flow.

### Table 11–2 DVMs for the Location Process Flow

<table>
<thead>
<tr>
<th>Name</th>
<th>Columns</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDRESS_COUNTRY_ID</td>
<td>Siebel, COMMON, OTM_01</td>
<td>Country code</td>
</tr>
<tr>
<td>COMMUNICATION_METHOD</td>
<td>Siebel, COMMON, OTM_01</td>
<td>Phone, Fax, and so on</td>
</tr>
<tr>
<td>CONTACT_SALUTATION</td>
<td>Siebel, COMMON, OTM_01</td>
<td>Salutation of a contact</td>
</tr>
<tr>
<td>LOCATION_ROLE</td>
<td>COMMON, OTM_01</td>
<td>Ship To, Bill To, and so on</td>
</tr>
<tr>
<td>PHONENUMBER_TYPE</td>
<td>PHONENUMBER_TYPE</td>
<td>Types of Phone number</td>
</tr>
<tr>
<td>STATE</td>
<td>Siebel, COMMON, OTM_01</td>
<td>State code</td>
</tr>
<tr>
<td>TIMEZONE_ID</td>
<td>Siebel, COMMON, OTM_01</td>
<td>Time zone description</td>
</tr>
<tr>
<td>TRANSPORTATIONSTOP_TYPE</td>
<td>Siebel, COMMON, OTM_01</td>
<td>TransportationStopType</td>
</tr>
</tbody>
</table>

Table 11–3 lists the DVMs for the order process flow.

### Table 11–3 DVMs for the Order Process Flow

<table>
<thead>
<tr>
<th>Name</th>
<th>Columns</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENCY_CODE</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Used to convert the Siebel Currency Data to Oracle Transportation Management (OTM) Currency Data</td>
</tr>
<tr>
<td>EQUIPMENT_TYPE</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Equipment Type DVM</td>
</tr>
<tr>
<td>ORDER_DIVISION</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Siebel Division Code equivalent</td>
</tr>
<tr>
<td>ORDER_STATUSCODE</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Relates the status of the order whether it is accepted or rejected.</td>
</tr>
<tr>
<td>SHIP_DEVICE</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Shipping Device DVM</td>
</tr>
<tr>
<td>STOP_TYPE</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Type of Stops</td>
</tr>
<tr>
<td>TRANSPORT_MODE</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Transport Mode DVM</td>
</tr>
<tr>
<td>TRANSPORTATIONSALESORDER_</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Relates the Siebel Items to the OTM Items.</td>
</tr>
<tr>
<td>ORDERLINEITEMPROPERTY</td>
<td>_PRODUCTTYPECODE</td>
<td>Relates the type of Product at the Line Item level, whether Accessorial product or Transportation product or Commodity.</td>
</tr>
<tr>
<td>TRANSPORTATIONSALESORDER_</td>
<td>_STOPACTIONTYPE</td>
<td>Relates the Stop action types.</td>
</tr>
<tr>
<td>PACKAGING</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Relates the Packaging of the Items.</td>
</tr>
<tr>
<td>TRANSPORTSALESORDER_TYPE</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Relates the CarrierRouteStopPickUp or DropOff.</td>
</tr>
<tr>
<td>UNIT_OF_MEASURE</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Relates the Volume, Weight and Distance units compatible to OTM.</td>
</tr>
</tbody>
</table>

Table 11–4 lists the DVMs for the order status process flow.

### Table 11–4 DVMs for the Order Status Process Flow

<table>
<thead>
<tr>
<th>Name</th>
<th>Columns</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDER_STATUS</td>
<td>COMMON, OTM_01, Siebel_01</td>
<td>Derives the status type value for one system.</td>
</tr>
<tr>
<td>TRANSPORTATIONSALESORDER_</td>
<td>COMMON, OTM_01, Siebel_01</td>
<td>Derives the status values for one system.</td>
</tr>
</tbody>
</table>
**Table 11–5** lists the DVMs for the product process flow.

<table>
<thead>
<tr>
<th>Name</th>
<th>Columns</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM_INDICATOR</td>
<td>Siebel, COMMON, OTM</td>
<td>Item Indicator</td>
</tr>
<tr>
<td>ITEM_TYPE.xml</td>
<td>Siebel, COMMON, OTM</td>
<td>Item type</td>
</tr>
<tr>
<td>PRODUCT_STATUS</td>
<td>Siebel, COMMON, OTM</td>
<td>Product Status</td>
</tr>
<tr>
<td>UNIT_OF_MEASURE</td>
<td>Siebel, COMMON, OTM</td>
<td>Unit of Measure</td>
</tr>
</tbody>
</table>

**Table 11–6** lists the DVMs for the query transportation sales order process flow.

<table>
<thead>
<tr>
<th>Name</th>
<th>Columns</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country Code in Address (ADDRESS_COUNTRYID)</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Used to identify the Country codes in the Address.</td>
</tr>
<tr>
<td>CURRENCY_CODE</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Currency codes</td>
</tr>
<tr>
<td>FEASIBLE_FLAG</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Relates the Feasible Solution for the Itineraries time wise.</td>
</tr>
<tr>
<td>ITEM_TYPE</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Relates the type of Costs associated with the itineraries.</td>
</tr>
<tr>
<td>State Code in Address (STATE)</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Used to identify the State Code in Destination and Origin Location.</td>
</tr>
<tr>
<td>TRANSPORTATIONSALESORDER_TRANSPORTMODE</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Relates mode of Transport for the commodities, for example, Rail, Road, and Truck.</td>
</tr>
<tr>
<td>TRANSPORTATIONSTOP_TYPE</td>
<td>EBL_01,COMMON, OTM_01</td>
<td>TransportationStopType</td>
</tr>
<tr>
<td>UNIT_OF_MEASURE</td>
<td>SEBL_01,COMMON, OTM_01</td>
<td>Relates the Weight Units, Volume units and Distance Units compatible to Oracle Transportation Management (OTM).</td>
</tr>
</tbody>
</table>
This chapter discusses how to configure the Oracle Order Management Integration Pack for Oracle Transportation Management (OTM), Oracle E-Business Suite (Oracle EBS), and Siebel Customer Relationship Management (Siebel CRM), including setting configuration properties, error handling, and Enterprise Business Object (EBO) implementation maps (EIMs).

This chapter includes the following sections:

- Section 12.1, "Setting Configuration Properties"
- Section 12.2, "Handling Errors"
- Section 12.3, "Enterprise Business Object Implementation Maps"

### 12.1 Setting Configuration Properties

Each section includes details required for the properties that must be set in the AIAConfigurationProperties.xml file. The file is located in <AIA_HOME>/aia_instances/$INSTANCE_NAME/AIAMetaData/config.


#### 12.1.1 SyncCustomerPartyListLogisticsProvABCSImpl

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Value/Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default.SystemID</td>
<td>OTM_01</td>
<td>Based on the SenderHostName obtained from application business message (ABM), sender SystemID is derived, but if that value is not available in ABM, AIA reads it from the config file using this property.</td>
</tr>
<tr>
<td>Routing.LogisticsWebService.RouteToCAVS</td>
<td>True/False, Default=False</td>
<td>Determines whether the EndpointURI should be routed either to the end application service or CAVS for simulating the service.</td>
</tr>
<tr>
<td>Routing.LogisticsWebService.OTM_01.EndpointURI</td>
<td>/</td>
<td>This property is used to derive the EndpointURI for the target application.</td>
</tr>
<tr>
<td>Routing.CustomerPartyResponseEBSV2.SyncCustomerPartyList.CAVS.EndpointURI</td>
<td>/</td>
<td>This property is used to determine the end point URI when the response message should be routed to composite application validation system (CAVS).</td>
</tr>
</tbody>
</table>
Setting Configuration Properties

For more information about Oracle Customer Hub master data management (MDM) service related configuration properties, see Oracle Customer Master Data Management Integration documentation.
### 12.1.2 SyncTransportationStopListLogisticsProvABCSImpl

Table 12–2  SyncTransportationStopListLogisticsProvABCSImpl

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Value/Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCExtension.PostProcessABM</td>
<td>True/False Default=False</td>
<td>This property is used as an extension point after EBM is transformed to application business message (ABM) and after invoking Logistic web service. It determines whether a service has to be invoked or not based on its value.</td>
</tr>
<tr>
<td>ABCExtension.PostProcessEBM</td>
<td>True/False Default=False</td>
<td>This property sets an extension point before enterprise business message (EBM) is transformed to ABM and after invoking Logistic web service. It determines whether a service has to be invoked or not based on its value.</td>
</tr>
<tr>
<td>Default.SystemID</td>
<td>OTM_01</td>
<td>Sender SystemId is obtained from ABM to be used in EBMHeader. If it is not available in ABM, AIA reads it from the config file using this property.</td>
</tr>
<tr>
<td>Routing.LogisticsWebService.RouteToCAVS</td>
<td>True/False Default=False</td>
<td>Determines whether the EndpointURI should be routed either to the end application service or composite application validation system (CAVS) for simulating the service.</td>
</tr>
<tr>
<td>Routing.LogisticsWebService.OTM_01.EndpointURI</td>
<td>/</td>
<td>This property sets the EndpointURI for the target application.</td>
</tr>
<tr>
<td>Routing.LogisticsWebService.CAVS.EndpointURI</td>
<td>/</td>
<td>This property defines the Endpoint URI for the CAVS simulator.</td>
</tr>
<tr>
<td>Routing.TransportationStopResponseEBS. SyncTransportationStopListResponse.RouteToCAVS</td>
<td>CAVS/PRODUCTION</td>
<td>Sets the response message EBM header Environment Code element to this value.</td>
</tr>
<tr>
<td>ABCExtension.PreInvokeABM</td>
<td>True/False Default=False</td>
<td>This property is used as an extension point after EBM is transformed to ABM and before invoking the target. It determines invocation of service at the extension point is to be made or not depending on whether it is true or false.</td>
</tr>
<tr>
<td>ABCExtension.PreXformEBMtoABM</td>
<td>True/False Default=False</td>
<td>This property is used as an extension point before EBM is transformed to ABM. It determines invocation of service at the extension point is to be made or not depending on whether it is true or false.</td>
</tr>
<tr>
<td>Transformation.EnableExtensions</td>
<td>True/False Default=False</td>
<td>Property used to determine enabling extensions in the Transformations based on the customer requirements.</td>
</tr>
<tr>
<td>LogisticsWebService.LanguageCode</td>
<td>ENU</td>
<td>This property indicates the language code for the Oracle Transportation Management (OTM) system. It is used for matching the LanguageCode coming from requester. If the language code does not match, the process is terminated.</td>
</tr>
<tr>
<td>CallBackURL</td>
<td>/</td>
<td>Property specifies the URL used by OTM to return the response.</td>
</tr>
<tr>
<td>Default.ComMethod</td>
<td>FAX</td>
<td>This property is used to read the default communication method for a location contact.</td>
</tr>
<tr>
<td>Default.SystemID</td>
<td>OTM_01</td>
<td>Sender SystemId is obtained from EBMHeader, but if it is empty AIA reads it from the config file using this property.</td>
</tr>
<tr>
<td>Routing.LogisticsWebService.RouteToCAVS</td>
<td>True/False</td>
<td>Determines whether the EndpointURI should be routed either to the end application service or composite application validation system (CAVS) for simulating the service.</td>
</tr>
</tbody>
</table>
12.1.3 SyncTransportationStopContactSiebelAggregatorAdapterConsumer

Table 12–3  SyncTransportationStopContactSiebelAggregatorAdapterConsumer

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Value/Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default.SystemID</td>
<td>SEBL_01</td>
<td>It is the responsibility of the application to send the SystemID from which the request is being sent. If any requester application fails to send the SystemID, AIA picks the default SystemID from this property.</td>
</tr>
</tbody>
</table>
Table 12–3 (Cont.)  SyncTransportationStopContactSiebelAggregatorAdapterConsumer

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Value/Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routing.SiebelWebService.RouteToCAVS</td>
<td>True/False Default=True</td>
<td>If this property value is set to false, then invokes the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Siebel webservices definition language (WSDL). If the property value is set</td>
</tr>
<tr>
<td></td>
<td></td>
<td>to true, then it invokes simulator.</td>
</tr>
<tr>
<td>Routing.SiebelWebService.CAVS.EndpointURI</td>
<td>/</td>
<td>This holds the URI of composite application</td>
</tr>
<tr>
<td></td>
<td></td>
<td>validation system (CAVS) simulator where the aggregator should send the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>request.</td>
</tr>
<tr>
<td>Routing.SiebelWebService.SEBL_01.EndpointURI</td>
<td>/</td>
<td>This holds the URI of Siebel webservice where the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>aggregator should send the request.</td>
</tr>
</tbody>
</table>

12.1.4 SyncTransportationStopAddressSiebelAggregatorAdapter

Table 12–4  SyncTransportationStopAddressSiebelAggregatorAdapter

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Value/Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default.SystemID</td>
<td>SEBL_01</td>
<td>It is the responsibility of the application to send the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SystemID from which the request is being sent. If any</td>
</tr>
<tr>
<td></td>
<td></td>
<td>requester application SystemID, AIA picks the default SystemID from this</td>
</tr>
<tr>
<td></td>
<td></td>
<td>config property.</td>
</tr>
<tr>
<td>Routing.SiebelWebService.RouteToCAVS</td>
<td>True/False Default=True</td>
<td>If this property value is set to false, then invokes the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Siebel webservice endpoint WSDL. If the property value is set to true,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>then it invokes simulator.</td>
</tr>
<tr>
<td>Routing.SiebelWebService.CAVS.EndpointURI</td>
<td>/</td>
<td>This holds the URI of CAVS simulator where the aggregator should send the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>request.</td>
</tr>
<tr>
<td>Routing.SiebelWebService.SEBL_01.EndpointURI</td>
<td>/</td>
<td>This holds the URI of Siebel web service where the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>aggregator should send the request.</td>
</tr>
</tbody>
</table>

12.1.5 SyncTransportationStopListSiebelReqABCSImpl

Table 12–5  SyncTransportationStopListSiebelReqABCSImpl

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Value/Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default.SystemID</td>
<td>SEBL_01</td>
<td>Based on the SenderHostName obtained from application business message</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(ABM), sender SystemID is derived. If ABM sends that as empty, AIA reads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>it from the config file using this property.</td>
</tr>
<tr>
<td>ABCSExtension.PreXformABMtoEBM</td>
<td>True/False Default=True</td>
<td>This property is used as an extension point before ABM is transformed to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>enterprise business message (EBM). It determines invocation of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>service at the extension point is to be made or not depending on whether</td>
</tr>
<tr>
<td></td>
<td></td>
<td>it is true or false.</td>
</tr>
<tr>
<td>Routing.TransportationStopEBS.SyncTransportationStopList.RouteToCAVS</td>
<td>True/False Default=True</td>
<td>This property is used to determine whether to route the request to CAVS.</td>
</tr>
<tr>
<td>Routing.TransportationStopEBS.SyncTransportationStopList.CAVS.EndpointURI</td>
<td>/</td>
<td>This property is used to get End Point URI when Routing.TransportationStopEBS. SyncTransportationStopList.RouteToCAVS is true.</td>
</tr>
</tbody>
</table>
### Setting Configuration Properties

**Table 12–5 (Cont.)  SyncTransportationStopListSiebelReqABCSImpl**

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Value/Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformation.EnableExtensions</td>
<td>True/False Default=False</td>
<td>This property should be set to True, when customers want to customize the attribute mapping done in XSL.</td>
</tr>
<tr>
<td>ABCSExtension.PreInvokeEBS</td>
<td>True/False Default=False</td>
<td>This property is used as an extension point after ABM to enterprise business message (EBM) transformation and before Invoking the EBS. It determines invocation of service at the extension point is to be made or not depending on whether it is true or false.</td>
</tr>
<tr>
<td>ABCSExtension.PostProcessABM</td>
<td>True/False Default=False</td>
<td>This property is used as an extension point after EBM is transformed to application business message (ABM) and after invoking Logistic webservice. It determines whether a service has to be invoked or not based on its value.</td>
</tr>
<tr>
<td>ABCSExtension.PostProcessEBM</td>
<td>True/False Default=False</td>
<td>This property sets an extension point before EBM is transformed to ABM and after invoking Logistic webservice. It determines whether a service has to be invoked or not based on its value.</td>
</tr>
<tr>
<td>Default.SystemID</td>
<td>OTM_01</td>
<td>Based on the SenderHostName obtained from ABM, sender SystemID is derived, but if it is empty, AIA reads it from the config file using this property.</td>
</tr>
<tr>
<td>Routing.LogisticsWebService.RouteToCAVS</td>
<td>/</td>
<td>Determines whether the EndpointURI should be routed either to the end application service or composite application validation system (CAVS) for simulating the service.</td>
</tr>
<tr>
<td>Routing.LogisticsWebService.OTM_01.EndpointURI</td>
<td>/</td>
<td>This property defines the EndpointURI for the target application.</td>
</tr>
<tr>
<td>Routing.LogisticsWebService.CAVS.EndpointURI</td>
<td>/</td>
<td>This property defines the EndpointURI for the CAVS simulator.</td>
</tr>
<tr>
<td>Routing.TransportationSalesOrderResponseEBS.SyncTransportationSalesOrderList.RouteToCAVS</td>
<td>/</td>
<td>This property determines whether the response message must be routed to CAVS or not.</td>
</tr>
<tr>
<td>Routing,TransportationSalesOrderResponseEBS.SyncTransportationSalesOrderList.MessageProcessingInstructionEnvironmentCode</td>
<td>CAVS/PRODUCTION Default=PRODUCTION</td>
<td>This property value is used to set the EnvironmentCode element of the Response message.</td>
</tr>
<tr>
<td>Routing,TransportationSalesOrderResponseEBS.SyncTransportationSalesOrderList.CAVS.EndpointURI</td>
<td>/</td>
<td>Defines the composite application validation system (CAVS) EndpointURI for the response message.</td>
</tr>
<tr>
<td>OTM_01.CONTACT_DOMAIN</td>
<td>/</td>
<td>Property specifies the domain of the OTM instance in which the Contact for the external system has been created.</td>
</tr>
<tr>
<td>OTM_01.Contact_Gid</td>
<td>/</td>
<td>Property specifies the Contact created in the Oracle Transportation Management (OTM) instance for the external system.</td>
</tr>
</tbody>
</table>

**Table 12–6  SyncTransportationSalesOrderListLogisticsProvABCSImpl**

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Value/Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCSExtension.PostProcessABM</td>
<td>True/False Default=False</td>
<td>This property is used as an extension point after EBM is transformed to application business message (ABM) and after invoking Logistic webservice. It determines whether a service has to be invoked or not based on its value.</td>
</tr>
<tr>
<td>ABCSExtension.PostProcessEBM</td>
<td>True/False Default=False</td>
<td>This property sets an extension point before EBM is transformed to ABM and after invoking Logistic webservice. It determines whether a service has to be invoked or not based on its value.</td>
</tr>
<tr>
<td>Default.SystemID</td>
<td>OTM_01</td>
<td>Based on the SenderHostName obtained from ABM, sender SystemID is derived, but if it is empty, AIA reads it from the config file using this property.</td>
</tr>
<tr>
<td>Routing,TransportationSalesOrderResponseEBS.SyncTransportationSalesOrderList.RouteToCAVS</td>
<td>/</td>
<td>Determines whether the EndpointURI should be routed either to the end application service or composite application validation system (CAVS) for simulating the service.</td>
</tr>
<tr>
<td>Routing,TransportationSalesOrderResponseEBS.SyncTransportationSalesOrderList.MessageProcessingInstructionEnvironmentCode</td>
<td>CAVS/PRODUCTION Default=PRODUCTION</td>
<td>This property value is used to set the EnvironmentCode element of the Response message.</td>
</tr>
<tr>
<td>Routing,TransportationSalesOrderResponseEBS.SyncTransportationSalesOrderList.CAVS.EndpointURI</td>
<td>/</td>
<td>Defines the composite application validation system (CAVS) EndpointURI for the response message.</td>
</tr>
<tr>
<td>OTM_01.CONTACT_DOMAIN</td>
<td>/</td>
<td>Property specifies the domain of the OTM instance in which the Contact for the external system has been created.</td>
</tr>
<tr>
<td>OTM_01.Contact_Gid</td>
<td>/</td>
<td>Property specifies the Contact created in the Oracle Transportation Management (OTM) instance for the external system.</td>
</tr>
</tbody>
</table>
12.1.7 SyncTransportationSalesOrderListSiebelReqABCSImpl

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Value/Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCSExtension.PostProcessABM</td>
<td>True/False Default= False</td>
<td>This property is used as an extension point after enterprise business message (EBM) to ABM transformation and before invoking the target end point application for extensibility of application business message (ABM) message. It determines invocation of extension point is to be made or not depending on whether it is true or false.</td>
</tr>
<tr>
<td>ABCSExtension.PostProcessEBM</td>
<td>True/False Default= False</td>
<td>This property sets an extension point before EBM is transformed to ABM and after invoking Logistic webservice. It determines whether a service has to be invoked or not based on its value.</td>
</tr>
<tr>
<td>Default.SystemID</td>
<td>SEBL_01</td>
<td>Based on the SenderHostName obtained from application business message (ABM), sender SystemID is derived, but if it is empty, AIA reads it from the config file using this property.</td>
</tr>
<tr>
<td>ABCSExtension.PreXformABMtoEBM</td>
<td>True/False Default= False</td>
<td>This property is used as an extension point before ABM is transformed to EBM and after invoking Logistic webservice. It determines invocation of service at the extension point is to be made or not depending on whether it is true or false.</td>
</tr>
<tr>
<td>Routing.TransportationSalesOrderEBS.SyncTransportationSalesOrderList.RouteToCAVS</td>
<td>True/False Default= False</td>
<td>This property determines whether the message should be routed to composite application validation system (CAVS) or not.</td>
</tr>
<tr>
<td>Routing.TransportationSalesOrderEBS.SyncTransportationSalesOrderList.CAVS.EndpointURI</td>
<td>/</td>
<td>This property defines the CAVS Endpoint.</td>
</tr>
</tbody>
</table>
Setting Configuration Properties

12.1.8 UpdateTransportationSalesOrderListSiebelProvABCSImpl

Table 12–8 UpdateTransportationSalesOrderListSiebelProvABCSImpl

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Value/Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCExtension.PostProcessABM</td>
<td>True/False Default=False</td>
<td>This property is used as an extension point after EBM is transformed to ABM and after invoking Logistic webservice. It determines whether a service has to be invoked or not based on its value.</td>
</tr>
<tr>
<td>ABCExtension.PostProcessEBM</td>
<td>True/False Default=False</td>
<td>This property sets an extension point before EBM is transformed to ABM and after invoking Logistic webservice. It determines whether a service has to be invoked or not based on its value.</td>
</tr>
<tr>
<td>Default.SystemID</td>
<td>SEBL_01</td>
<td>Based on the SenderHostName obtained from application business message (ABM), sender SystemID is derived and set in EBMHeader. If it is empty, AIA reads it from the config file using this property.</td>
</tr>
<tr>
<td>Routing.SiebelWebService.RouteToCAVS</td>
<td>True/False Default=False</td>
<td>Determines whether the EndpointURI should be routed either to the end application service or CAVS for simulating the service.</td>
</tr>
<tr>
<td>Routing.SiebelWebService.CAVS.EndpointURI</td>
<td>/</td>
<td>This property defines the EndpointURI for the CAVS simulator.</td>
</tr>
<tr>
<td>Routing.TransportationSalesOrderResponseEBS.</td>
<td>True/False Default=False</td>
<td>This property determines whether the response message must be routed to CAVS or not.</td>
</tr>
<tr>
<td>UpdateTransportationSalesOrderListResponse.</td>
<td>CAVS/PRODUCTION Default=PRODUCTION</td>
<td>This property is used to set the environment code element of the response message.</td>
</tr>
<tr>
<td>RouteToCAVS</td>
<td>/</td>
<td>Defines the CAVS EndpointURI for response message.</td>
</tr>
</tbody>
</table>
12.1.9 UpdateTransportationSalesOrderListLogisticsReqABCSImpl

**Table 12–9 UpdateTransportationSalesOrderListLogisticsReqABCSImpl**

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Value/Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCSExtension.PreInvokeABS</td>
<td>True/False Default=_False</td>
<td>This property is used as an extension point after enterprise business message (EBM) to ABM transformation and before invoking the target. It determines invocation of service at the extension point is to be made or not depending on whether it is true or false.</td>
</tr>
<tr>
<td>ABCSExtension.PreXformABMtoEBM</td>
<td>True/False Default=_False</td>
<td>This property is used as an extension point before EBM is transformed to ABM. It determines invocation of service at the extension point is to be made or not depending on whether it is true or false.</td>
</tr>
<tr>
<td>Transformation.EnableExtensions</td>
<td>True/False Default=_False</td>
<td>Property used to determine enabling extensions in the Transformations based on customer requirements.</td>
</tr>
</tbody>
</table>

**12.1.9 UpdateTransportationSalesOrderListLogisticsReqABCSImpl**

**Table 12–9 UpdateTransportationSalesOrderListLogisticsReqABCSImpl**

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Value/Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default.SystemID</td>
<td>OTM_01</td>
<td>Sender SystemId is obtained from application business message (ABM) and set into EBMHeader. If it is empty, AIA reads it from the config file using this property.</td>
</tr>
<tr>
<td>ABCSExtension.PreXformABMtoEBM</td>
<td>True/False Default=_False</td>
<td>This property is used as an extension point before EBM is transformed to ABM. It determines invocation of service at the extension point is to be made or not depending on whether it is true or false.</td>
</tr>
<tr>
<td>Routing.TransportationSalesOrderEBS V1.UpdateTransportationSalesOrderList.CAVS.EndpointURI</td>
<td>True/False Default=_False</td>
<td>This property defines the end point URI of CAVS.</td>
</tr>
<tr>
<td>Routing.TransportationSalesOrderEBS V1.UpdateTransportationSalesOrderList.RouteToCAVS</td>
<td>True/False Default=_False</td>
<td>EnvironmentCode in the Header population is derived based on this value. If this property value is set to true, then the EnvironmentCode value is set to CAVS and if the property value is not set, then the environment code is set to Production by default.</td>
</tr>
<tr>
<td>Routing.TransportationSalesOrderEBS V1.UpdateTransportationSalesOrderList.MessageProcessingInstruction.EnvironmentCode</td>
<td>CAVS/PRODUCTTION Default=PRODUCTION</td>
<td>This property is used to set the Environment Code element of the request message.</td>
</tr>
<tr>
<td>ABCSExtension.PreInvokeEBS</td>
<td>True/false. Default = false.</td>
<td>This property is used as an extension point before enterprise business message (EBM) is transformed to ABM. It determines invocation of service at the extension point is to be made or not depending on whether it is true or false.</td>
</tr>
<tr>
<td>Transformation.EnableExtensions</td>
<td>True/False Default=_False</td>
<td>This property should be set to true when customers want to customize the attribute mapping done in xsl.</td>
</tr>
<tr>
<td>Default.Languages</td>
<td>ENG</td>
<td>This property is used to set the default language of Oracle Transportation Management (OTM).</td>
</tr>
</tbody>
</table>
### 12.1.10 SyncItemListSiebelReqABCSImpl

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default.SystemID</td>
<td>SEBL_01</td>
<td>Based on the SenderHostName obtained from ABM, sender SystemID is derived, but if it is empty, AIA reads it from the config file using this property.</td>
</tr>
<tr>
<td>ABCSExtension. PreXformABMtoEBM</td>
<td>True/False, Default = False</td>
<td>This property is used as an extension point before the ABM is transformed to EBM. It determines invocation of service at the extension point to be made or not depending on whether it is true or false.</td>
</tr>
<tr>
<td>ABCSExtension. PreInvokeEBS</td>
<td>True/False</td>
<td>This property is used as an extension point after the ABM is transformed to EBM. It determines invocation of service at the extension point to be made or not depending on whether it is true or false.</td>
</tr>
<tr>
<td>Transformation.EnableExtensions</td>
<td>True/False</td>
<td>Property used for determining enabling XSL 2.0 extensions in the Transformations.</td>
</tr>
<tr>
<td>Routing.ItemEBSV2.SyncItemList.RouteToCAVS</td>
<td>True/False</td>
<td>Determines whether the EndpointURI should be routed either to the end application service or CAVS for simulating the service.</td>
</tr>
<tr>
<td>Routing.ItemEBSV2.SyncItemList.CAVS.EndpointURI</td>
<td>/</td>
<td>This property sets the EndpointURI for the composite application validation system (CAVS) simulator.</td>
</tr>
</tbody>
</table>

### 12.1.11 SyncItemListLogisticsProvABCSImpl

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCSExtension. PostProcessABM</td>
<td>True/False, Default=FALSE</td>
<td>This property is used as an extension point after enterprise business message (EBM) is transformed to application business message (ABM) and after invoking Logistic webservice. It determines whether a service has to be invoked or not based on its value.</td>
</tr>
<tr>
<td>ABCSExtension. PostProcessEBM</td>
<td>True/False, Default=FALSE</td>
<td>This property sets an extension point before EBM is transformed to ABM and after invoking Logistic webservice. It determines whether a service has to be invoked or not based on its value.</td>
</tr>
<tr>
<td>Default.SystemID</td>
<td>OTM_01</td>
<td>Sender SystemId is obtained from EBMHeader, but if it is empty, AIA reads it from the config file using this property.</td>
</tr>
<tr>
<td>ABCSExtension. PreProcessEBM</td>
<td>True/False, Default=False</td>
<td>This property is used as an extension point before EBM is transformed to ABM. It determines invocation of service at the extension point to be made or not depending on whether it is true or false.</td>
</tr>
<tr>
<td>ABCSExtension. PreProcessABM</td>
<td>True/False</td>
<td>This property is used as an extension point After the EBM is transformed to ABM. It determines invocation of service at the extension point to be made or not depending on whether it is true or false.</td>
</tr>
<tr>
<td>ABCSExtension. PostProcessABM</td>
<td>True/False</td>
<td>This property is used as an extension point after the response ABM is received from the provider and before it is transformed to response EBM. It determines invocation of service at the extension point to be made or not depending on whether it is true or false.</td>
</tr>
</tbody>
</table>
### 12.1.12 QueryTransportationSalesOrderItineraryListSiebelReqABCSImpl

**Table 12–11 (Cont.) SyncItemListLogisticsProvABCSImpl**

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCSExtension.PostProcessEBM</td>
<td>True/False</td>
<td>This property is used as an extension point after the response application business message (ABM) is received from the provider and before it is transformed to response EBM. It determines invocation of service at the extension point is to be made or not depending on whether it is true or false</td>
</tr>
<tr>
<td>Transformation.EnableExtensions</td>
<td>True/False</td>
<td>Property used for determining enabling XSL 2.0 extensions in the Transformations.</td>
</tr>
<tr>
<td>Routing.LogisticsWebServiceV1.RouteToCAVS</td>
<td>True/False</td>
<td>Determines whether the EndpointURI should be routed either to the end application service or CAVS for simulating the service.</td>
</tr>
<tr>
<td>Routing.LogisticsWebServiceV1.CAVS.EndpointURI</td>
<td>/</td>
<td>This property sets the EndpointURI for the composite application validation system (CAVS) simulator.</td>
</tr>
<tr>
<td>Routing.LogisticsWebServiceV1.OTM_01.EndpointURI</td>
<td>/</td>
<td>This property sets the EndpointURI for the target application.</td>
</tr>
<tr>
<td>ABCS.CallbackURL</td>
<td>/</td>
<td>Property specifies the URL used by Oracle Transportation Management (OTM) to return the response.</td>
</tr>
<tr>
<td>OTM_01.CONTACT_DOMAIN</td>
<td>/</td>
<td>Property specifies the OTM instance user name.</td>
</tr>
<tr>
<td>OTM_01.Contact_Gid</td>
<td>/</td>
<td>Property specifies the Contact created in the OTM instance for the external system.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default.SystemID</td>
<td>SEBL_01</td>
<td>Sender SystemId is obtained from ABM to be used in EBMHeader. If it is not available, then the AIA reads it from the config file using this property.</td>
</tr>
<tr>
<td>Routing.TransportationSalesOrderEBS.RouteToCAVS</td>
<td>True/False</td>
<td>This property, which is used for populating EBMHeader’s EnvironmentCode, decides whether the TransportationSalesOrderEBS should invoke CAVS or the Provider application’s business connector service.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If the value is set to true, EBMHeader's EnvironmentCode is set to CAVS and the EBS routes the request to CAVS.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If the value is set to false, EBMHeader's EnvironmentCode is set to the EnvironmentCode mentioned in AIAConfiguration property Routing.TransportationSalesOrderEBS.MessageProcessingInstruction.EnvironmentCode, or if this property is not set, then the default EnvironmentCode is PRODUCTION. And in the EBS routing rules decide based on the EnvironmentCode where it should route.</td>
</tr>
<tr>
<td>Routing.TransportationSalesOrderEBS.MessageProcessingInstruction.EnvironmentCode</td>
<td>PRODUCTION</td>
<td>This property defines the Environment Code to be populated in EBMHeader, which is used by the EBS to route it to the corresponding provider application business connector service or CAVS. This property is used while checking the RouteToCAVS property.</td>
</tr>
<tr>
<td>Routing.TransportationSalesOrderEBS.CAVS.EndpointURI</td>
<td>/</td>
<td>This property defines the Definition Id to be populated in MessageProcessingInstruction of the EBMHeader, when the RouteToCAVS property is set to true. This holds the URI of CAVS simulator where the EBS should the request.</td>
</tr>
</tbody>
</table>
### Setting Configuration Properties

#### AbcExtension.PreXformABMToEBMTransportationSalesOrderItineraryListABM

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCSExtension.PreXformABMToEBMTransportationSalesOrderItineraryListABM</td>
<td>True/false Default=false</td>
<td>This property is used as an extension point before ABM is transformed to enterprise business message (EBM). It determines invocation of service at the extension point is to be made or not depending on its value.</td>
</tr>
</tbody>
</table>

#### AbcExtension.PostXformABMToEBMTransportationSalesOrderItineraryListABM

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCSExtension.PostXformABMToEBMTransportationSalesOrderItineraryListABM</td>
<td>True/false Default=false</td>
<td>This property is used as an extension point before ABM is transformed to EBM. It determines invocation of service at the extension point is to be made or not depending on its value.</td>
</tr>
</tbody>
</table>

#### Transformation.EnableExtensions

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformation.EnableExtensions</td>
<td>True/false</td>
<td>This property determines enabling extensions in the transformations based on customer requirements.</td>
</tr>
</tbody>
</table>

#### AbcExtension.PostProcessABM

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCSExtension.PostProcessABM</td>
<td>True/False Default=False</td>
<td>This property is used as an extension point after EBM is transformed to application business message (ABM) and after invoking Logistic webservice. It determines whether a service has to be invoked or not based on its value.</td>
</tr>
</tbody>
</table>

#### AbcExtension.PostProcessEBM

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCSExtension.PostProcessEBM</td>
<td>True/False Default=False</td>
<td>This property sets an extension point before EBM is transformed to ABM and after invoking Logistic webservice. It determines whether a service has to be invoked or not based on its value.</td>
</tr>
</tbody>
</table>

#### Default.SystemID

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default.SystemID</td>
<td>OTM_01</td>
<td>Sender SystemId is obtained from application business message (ABM) to be used in EBMHeader. If it is not available in ABM, AIA reads it from the config file using this property.</td>
</tr>
</tbody>
</table>

#### Routing.LogisticsWebService.RouteToCAVS

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routing.LogisticsWebService.RouteToCAVS</td>
<td>true/false Default=false</td>
<td>This property indicates whether the message should be sent to the target application or to CAVS. If this property is set to true, the message is routed to CAVS, else it is routed to target application through adapter service if any. The URI of partnerlink is dynamically decided through a java activity based on this property.</td>
</tr>
</tbody>
</table>

#### Routing.LogisticsWebService.CAVS.EndpointURI

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routing.LogisticsWebService.CAVS.EndpointURI</td>
<td>/</td>
<td>If the RouteToCAVS property is set to true, the URI of the simulator is dynamically derived by the java activity from this property</td>
</tr>
</tbody>
</table>

#### Routing.LogisticsWebService.OTM_01.EndpointURI

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routing.LogisticsWebService.OTM_01.EndpointURI</td>
<td>/</td>
<td>If the RouteToCAVS property is set to false, the URI of the partnerlink is dynamically derived by the java activity from this property. This property should hold the endpoint URI of the provider application or that of the adapter service connected to provider application if any.</td>
</tr>
</tbody>
</table>

#### AbcExtension.PreXformEBMtoABM

<table>
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<tr>
<th>Property Name</th>
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<tbody>
<tr>
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#### AbcExtension.PostXformABMtoEBM

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<tr>
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#### Transformation.EnableExtensions

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<tbody>
<tr>
<td>Transformation.EnableExtensions</td>
<td>true/false</td>
<td>This property should be set to true when customers want to customize the attribute mapping done in xsl.</td>
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---

**Table 12–12 (Cont.) QueryTransportationSalesOrderItineraryListSiebelReqABCSImpl**

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<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
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</thead>
<tbody>
<tr>
<td>ABCSExtension.PostProcessABM</td>
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---

**Table 12–13 QueryTransportationSalesOrderItineraryListLogisticsProvABCSImpl**

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**Table 12–14 Default.SystemID**

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<tr>
<th>Property Name</th>
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**Table 12–15 Routing.LogisticsWebService.RouteToCAVS**

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**Table 12–16 Routing.LogisticsWebService.CAVS.EndpointURI**

<table>
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<tr>
<td>Routing.LogisticsWebService.CAVS.EndpointURI</td>
<td>/</td>
<td>If the RouteToCAVS property is set to true, the URI of the simulator is dynamically derived by the java activity from this property</td>
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---

**Table 12–17 Routing.LogisticsWebService.OTM_01.EndpointURI**

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**Table 12–18 ABCSExtension.PreXformEBMtoABM**

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**Table 12–19 ABCSExtension.PostXformABMtoEBM**

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**Table 12–20 Transformation.EnableExtensions**

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**Oracle Order Management for Oracle Transportation Management, Oracle EBS, and Siebel CRM**
12.2 Handling Errors

For more information about AIA error handling, see the Oracle Fusion Middleware Infrastructure Components and Utilities User’s Guide for Oracle Application Integration Architecture Foundation Pack, "Setting Up and Using Error Handling and Logging."

12.3 Enterprise Business Object Implementation Maps

For more information about using XSL Mapping Analyzer (XMAN), see Oracle Fusion Middleware Infrastructure Components and Utilities User’s Guide for Oracle Application Integration Architecture Foundation Pack, Using the XSL Mapping Analyzer. For more information about how services are mapped, see EBO Implementation Maps (EIMs) 881022.1 at My Oracle Support (https://support.oracle.com/).