**Oracle. Driver Management Integration Pack
for Oracle. Transportation Management and
Oracle. E-Business Suite 2.5 - Implementation
Guide**

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Oracle Driver Management Integration Pack for Oracle Transportation Management and Oracle E-Business Suite 2.5

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Contents

Preface

This preface discusses:

- The Oracle Application Integration Architecture - Foundation Pack: Concepts and Technologies Guide

- Oracle Application Integration Architecture - Foundation Pack: Integration Developer's Guide

- Oracle Application Integration Architecture - Foundation Pack: Core Infrastructure Components Guide

- Oracle Application Integration Architecture Process Integration Packs

- Additional resources

Oracle Application Integration Architecture Foundation Pack Concepts and Technologies Guide

The Oracle Application Integration Architecture - Foundation Pack: Concepts and Technologies Guide is a companion volume to the Oracle Application Integration Architecture - Foundation Pack: Core Infrastructure Components Guide and Oracle Application Integration Architecture - Foundation Pack: Integration Developer's Guide. The Oracle Application Integration Architecture - Foundation Pack: Concepts and Technologies Guide provides definitions of fundamental Oracle Application Integration Architecture (AIA) concepts and discusses:

- Oracle AIA.

- Enterprise business objects and enterprise business messages.

- Enterprise business services.

- Application business connector services.

- Interaction patterns.

- Extensibility.

- Versioning.

- Business processes.

- Batch processing.

- Infrastructure services.

- Security.

Oracle Application Integration Architecture - Foundation Pack: Integration Developer's Guide

Oracle Application Integration Architecture - Foundation Pack: Integration Developer's Guide is a companion volume to Oracle Application Integration Architecture - Foundation Pack: Concepts and Technologies Guide and Oracle Application Integration Architecture - Foundation Pack: Core Infrastructure Components Guide.

The Oracle Application Integration Architecture - Foundation Pack: Integration Developer's Guide discusses how to:

- Create an integration scenario.

- Define business service patterns.

- Design and develop enterprise business services.

- Design and develop enterprise business flows.

- Design and construct Application Business Connector Services (ABCS).

- Work with message transformation, enrichment, and configuration.

- Develop custom XPath functions.

- Design and construct JMS Adapter services.

- Work with enterprise message headers.

- Work with message routing.

- Work with transactions.

- Develop Oracle Application Integration Architecture (AIA) services to work with the CAVS.

- Configure Oracle AIA processes to be eligible for error handling and logging.

- Extend enterprise business objects (EBOs).

In addition, this book provides:

- AIA naming standards.

- Sample and template WSDLs for use with Oracle AIA.

Oracle Application Integration Architecture - Foundation Pack: Core Infrastructure Components Guide

Oracle Application Integration Architecture - Foundation Pack: Core Infrastructure Components Guide is a companion volume to Oracle Application Integration Architecture – Foundation Pack: Concepts and Technologies Guide and Oracle Application Integration Architecture – Foundation Pack: Integration Developer's Guide.

Oracle Application Integration Architecture - Foundation Pack: Core Infrastructure Components Guide discusses how to:

- Work with the Composite Application Validation System (CAVS).

- Work with the Business Service Repository (BSR).

- Set up and use error handling and logging.

- Work with the diagnostics framework.

Oracle Application Integration Architecture Process Integration Packs

A process integration pack (PIP) is a prebuilt set of integrated orchestration flows, application integration logic, and extensible enterprise business objects and services required to manage the state and execution of a defined set of activities or tasks between specific Oracle applications associated with a given process. A PIP provides everything you need to deploy a selected integrated business process area. The PIP product offering is suited to those customers seeking for rapidly implementation of a discreet business process.

Additional Resources

These resources are available:

Resource	Location
Installation Guide	My Oracle Support: https://support.oracle.com/
Documentation updates	My Oracle Support: https://support.oracle.com/
Release Notes	Oracle Technology Network http://www.oracle.com/technology/
Known issues, workarounds, and most current list of patches	My Oracle Support: https://support.oracle.com/

Chapter 1: Understanding the Oracle Driver Management Integration Pack for Oracle Transportation Management and Oracle E-Business Suite

This chapter provides an overview of the Oracle Transportation Driver Management integration pack and covers:

- Participating Applications

- Business process flows

- Key Benefits

- Security

- Solution assumptions and constraints

Overview of Oracle Transportation Driver Management Integration Pack

The Oracle Transportation Driver Management process integration pack provides a best-of-breed solution that enables an organization to manage the driver profiles and settle the payments.

The process integration pack (PIP) automates the Oracle Transportation Driver Management process between Oracle Transportation Management (OTM) and Oracle E-Business Suite. It includes the automatic driver and independent contractor synchronization, the driver absence synchronization, the driver trainings/training history synchronization, the driver certifications/certification history synchronization, and the driver/contractor payment process.

Participating Applications

This section provides an overview of the applications participating in the process integration:

- Oracle Transportation Management

- Oracle E-Business Suite

Oracle Transportation Management

Oracle Transportation Management delivers robust transportation planning and execution capabilities to shippers and third-party logistics providers. It integrates and streamlines transportation planning, execution, freight payment, and business process automation on a single application across all modes of transportation, from full truckload to complex multileg air, ocean, and rail shipments.

Regardless of the size or the volume of the business, Oracle Transportation Management delivers the capabilities needed in an open-standards-based architecture that enables you to start with a single component or any mix of components and also provides the flexibility to grow easily, without installing or reinstalling added functionality.

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

Oracle E-Business Suite

These applications of the Oracle E-Business Suite participate in the process integration:

- Oracle Human Resources Management System (HRMS)

- Oracle Human Resources (HR)

- Oracle Learning Management

- Oracle Incentive Compensation (OIC)

Oracle HRMS

Oracle HRMS is flexible enough to meet your needs now and adaptable enough to change with your business. With every new release, we increase the quality and innovation of our products— and the impact they can have on your bottom line. Oracle HRMS is a suite of applications, comprising Oracle HR, Oracle Payroll, Oracle HR: Self-service, Oracle Time and Labor, Oracle iRecruitment, Oracle HR Intelligence, Oracle iLearning EBS, Oracle Advanced Benefits, and Oracle Labor Distribution.

Oracle Human Resources

Oracle HR is a powerful tool for optimizing the use of the human assets of your business, whether you operate in the private or the public sector. It enables you to adopt structured approaches to attracting, retaining, developing, and using the critical skills and knowledge needed to improve the capability of your business to meet new challenges. Oracle HR is part of the Oracle E-Business Suite, an integrated set of applications that are engineered to seamlessly work together. Oracle HR is a key component of the fully integrated Oracle HRMS suite of applications.

Oracle Learning Management

Oracle Learning Management is designed to support all education models by providing a single, unified, learning delivery system to employees, customers, and partners. Because this single system is native to the Oracle E-Business Suite, it can also relate learning activities and results to business needs, including compliance-related initiatives. Oracle Learning Management addresses your compliance needs by providing:

- Full management of learning-related workforce competencies

- Structured learning paths, enabling the monitoring of compliance-related learning events and notification of progress towards path completion

- Management of a unified catalog of compliance-related courses in one central location, combining self-paced and classroom-based training into one catalog

- Creation of tests to assess both learner experience and curriculum effectiveness, providing valuable feedback on whether compliance goals and awareness objectives are being served

Oracle Incentive Compensation

Oracle Incentive Compensation (OIC) is a global, variable compensation application that automates the design, administration, and analysis of incentive-based compensation programs for employees and partners to successfully drive corporate goals. OIC is a key component of the Oracle E-Business Suite.

Accurately predicting, administering, and tracking variable payouts is key to your corporate performance strategy. The majority of companies struggle to maintain legacy, in-house systems that lack the flexibility required to model today's complex financial-focused, service-focused, and customer-focused strategies. At the same time, the increased focus on financial control—especially on sales commission payments—necessitates complete accountability and accuracy in incentive payouts, placing increasing pressure on point and legacy solutions.

With OIC, you can achieve:

- Financial control

- Operational effectiveness

- Corporate alignment

For more information about Oracle E-Business Suite, see *Oracle E-Business Suite User Guide*.

Business Process Flows

Oracle Driver Management process integration pack consists of these integration flows:

- Driver Profile

- Location

- Training/Certification and Absence Calendar

- Work Invoice

This diagram illustrates the Oracle Transportation Driver Management business process flows:
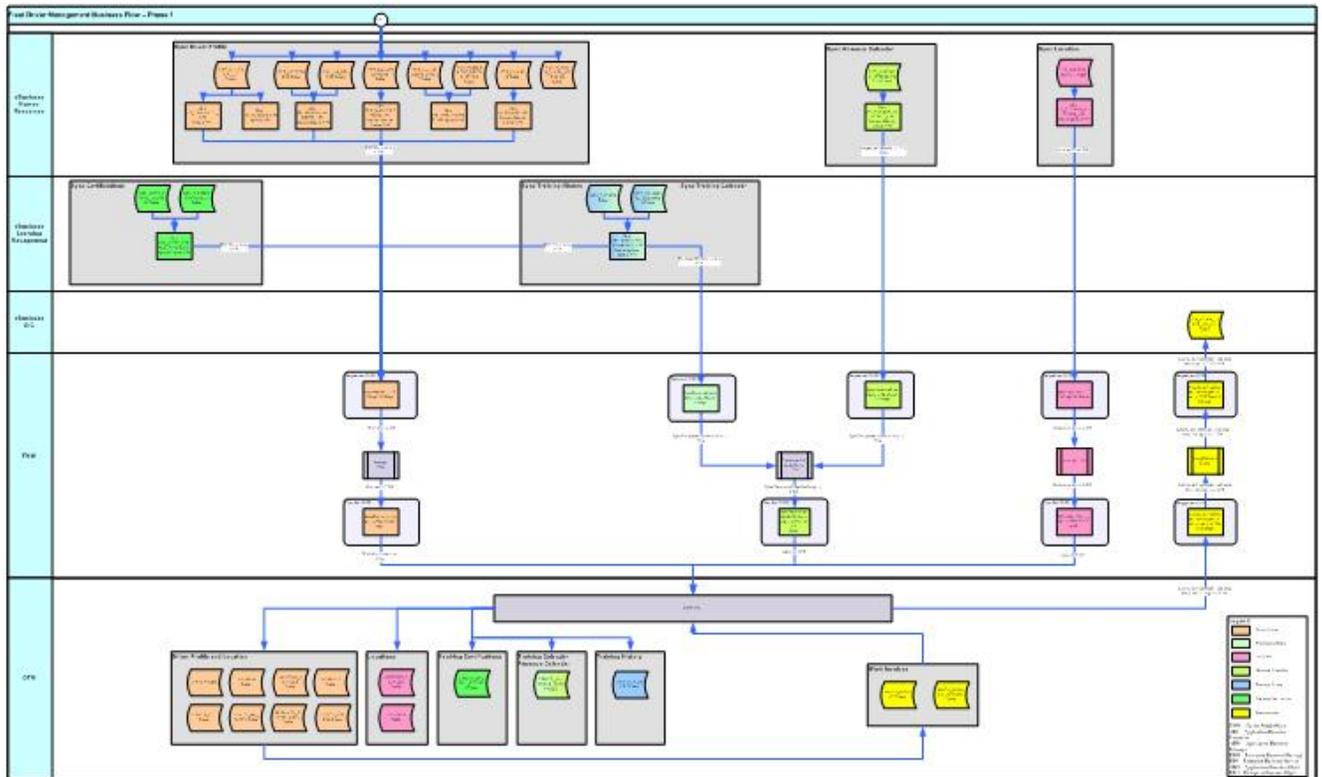
Driver Management process flow

Drivers are an important part of a company's fleet. Driver satisfaction and retention is critical to the successful and profitable operation of the fleet. Drivers are engaged in a variety of ways, such as full-time or part-time employees. Others may be independent contractors. Driver management entails multiple aspects, including:

- Driver HR – recruiting, on-boarding, training, license and certification management, vacations, promotions, termination, and so forth.

- Workforce scheduling – designing and assigning driver shifts, at-home profiles, and so forth.

- Driver utilization – part of fleet execution.

- Driver tracking – monitoring driver status, hours to ensure appropriate utilization and compliance.

- Logs and regulatory compliance monitoring.

- Driver pay – pay structures can vary by the individual driver and consist of many different sources of pay—activity-driven, hourly, salary, bonus, and so forth.

The integration pack for Oracle Transportation Driver Management enables an organization to synchronize their driver profiles between Oracle E-Business Suite and OTM. It also integrates the learning/certification and absence calendars for the drivers between OTM and Oracle E-Business Suite, integrates the work invoices created in OTM, and sends them to the Oracle E-Business Suite OIC system so that they can be accounted and settled in the Financial System.

Key Benefits

These are the key benefits for this integration pack:

- End-to-end management of drivers and independent contractors

- Improved driver management

- Increased driver satisfaction

- Enhanced visibility and accuracy for driver availability and payment

- Reduced integration time and costs

Security

The Driver Management Integration Pack also enables the organization to add one more level of security in the Integration. Integration Pack has been enhanced with a password encryption feature for the Oracle Transportation Management Inbound flows, which enables users to store encrypted OTM passwords in the AIAConfigurationProperties.xml file.

Solution Assumptions and Constraints

OTM and Oracle E-Business Suite applications are implemented prior to the implementation of this PIP.

Note: Additional assumptions and constraints exist for each of the process integration flows; they are documented in the respective chapters.

Chapter 2: Describing the Process Integration for Driver Profile

This chapter provides an overview of the process integration for initial loading and incremental synchronization of driver profile and covers:

- Driver Profile integration details

- Data requirements

- Oracle E-Business Suite interfaces

- Oracle transportation management interfaces

- Core application integration architecture components

- Integration services

Process Integration for Driver Profile

Drivers are an important part of a company's fleet. Driver satisfaction and retention are critical to the successful and profitable operation of the fleet. Drivers are engaged in a variety of ways, such as full-time or part-time employees. Others may be independent contractors. Driver profile information entails driver personal data such as name, address, phone, and so forth.

The process integration for driver profile between Oracle HR and OTM supports these integration flows:

- **Initial Loading of Driver Profile Information**: Extracts and loads the initial driver profiles from Oracle E-Business Suite HR into OTM.

- **Updating Driver Profile Information:** Enables the synchronization of incremental creation and updates of the driver profile from Oracle E-Business HR into OTM.

These diagrams illustrate the overall flow for the process integration of driver management:
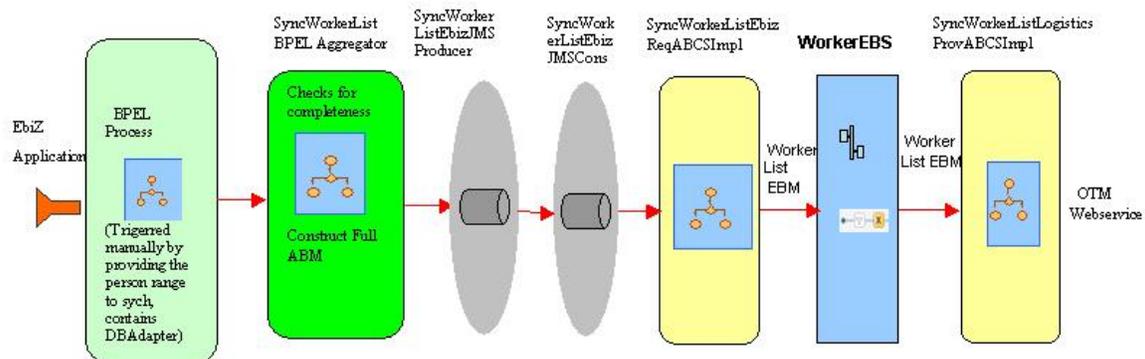
Driver Profile Process Integration flow
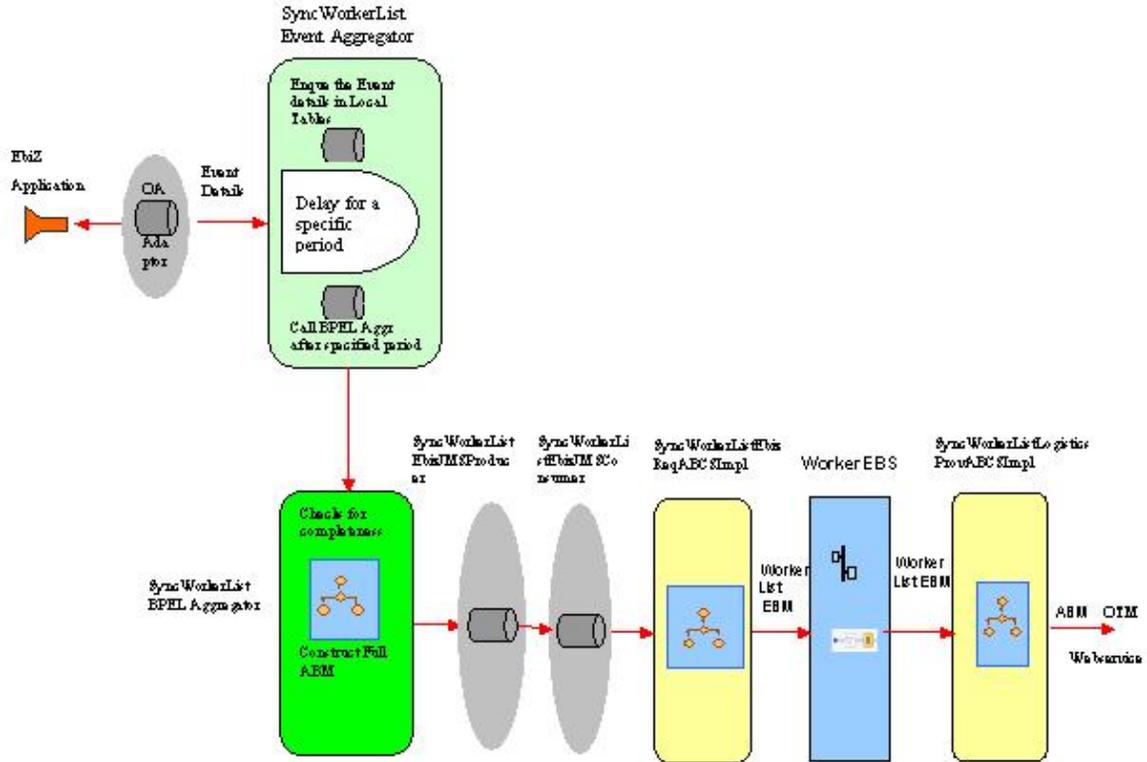
Updating Driver Profile Process Integration flow

Prerequisites

These are the prerequisites for the process integration for driver profiles:

- HR should be configured with the appropriate minimum driver data.

- The driver must be actively engaged or employed.

- All the required Configuration properties should also be specified.

For more information about Configuration properties, see Chapter 6: Implementing the Oracle Transportation Driver Management Process Integration Pack.

Solution Assumptions and Constraints

These are the solution assumptions and constraints:

1. This integration supports only the person type ID of an employee and a contingent worker.

2. The default location role is SHIPFROM/SHIPTO.

3. The country codes, qualification types, and delivery methods are manually maintained in OTM and Oracle E-Business Suite. These values are mapped using DVMs.

4. First Name is not a required field for Oracle E-Business Suite; however, for this integration, the First Name and Last Name of the employee should be entered in Oracle E-Business HR.

5. License state and country flexfields need to be configured at implementation time for HR.

6. In case a change is made to a future date, HR defers the business events until they become effective.

Driver Profile Integration Details

This integration flow uses these services:

- SyncWorkerListEbizInitialLoad

- SyncWorkerListEbizGroupEventAdapter

- SyncWorkerListEbizEventAggregator

- SyncWorkerListBPELAggregator

- SyncWorkerListEbizJMSProducer

- SyncWorkerListEbizJMSConsumer

- SyncWorkerListEbizReqABCSImpl

- WorkerEBS

- SyncWorkerListLogisticsProvABCSImpl

- OTMWebService

Initial Load of Driver Information

This sequence diagram illustrates the initial loading of driver information from Oracle E-Business Suite into OTM:
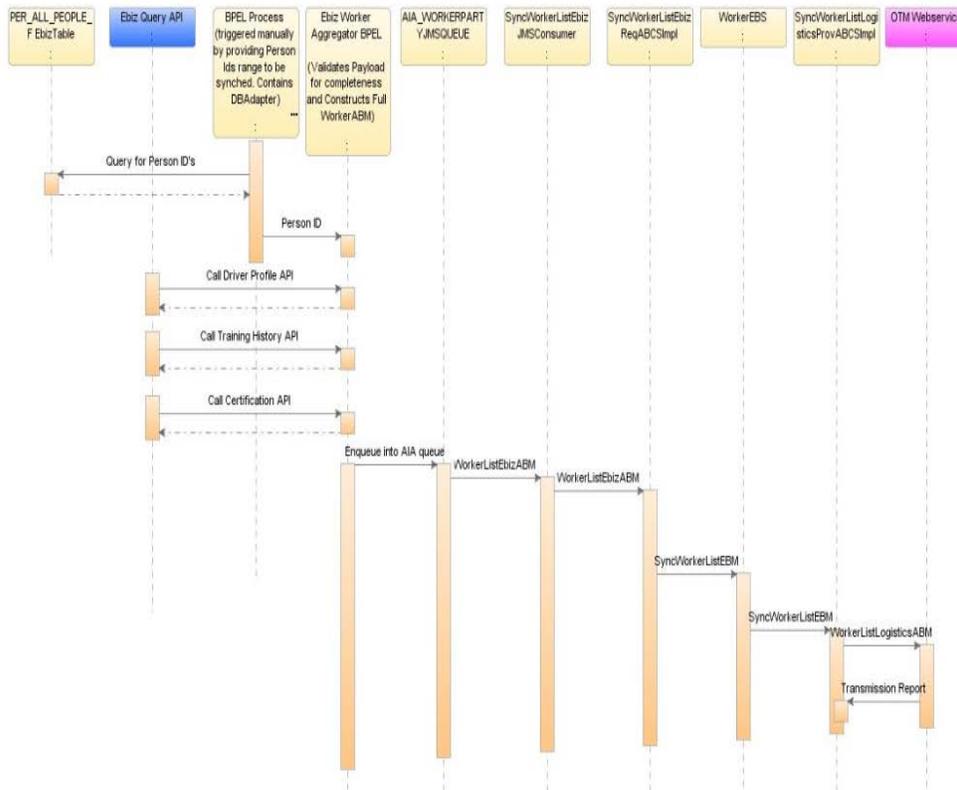
Initial load of driver information - sequence diagram

When you initiate the process, these events occur:

1. The SyncWorkerListEbizInitialLoad is a BPEL process that you initiate manually by providing the range of the person IDs that need to be synced to OTM as part of the initial load. For every person ID, this service invokes the SyncWorkerListBPELAggregator.

2. The SyncWorkerListEbizBPELAggregator invokes the get_details API, which then returns the complete driver profile details. This service then checks for the completeness of the payload and invokes the get_training_details API and the get_certification_details API. All the messages generated by the API calls are then merged into one message into a payload.

3. The SyncWorkerListEbizJMSProducer service reads the complete payload from the SyncWorkerListEbizBPELAggregator and drops the messages into AIA_WorkerListJMSQueue individually.

4. The SyncWorkerListEbizJMSConsumer service listens to the AIA_WorkerListJMSQueue, dequeues the messages, and invokes the SyncWorkerListEbizReqABCSImpl with the WorkerListEBizABM.

5. The SyncWorkerListEbizReqABCSImpl service transforms the WorkerListEBizABM into the SyncWorkerListEBM and populates the EBM header. The transformation does cross-referencing for system-specific values and invokes the WorkerEBS with the SyncWorkerList operation. The WorkerEBS is a routing Enterprise Service Bus (ESB) service with several operations on the WorkerEBO.

6. The WorkerEBS service with the SyncWorkerList operation routes the messages based on the CAVS flag to either the SyncWorkerListLogisticsProvABCSImpl service or the CAVS simulator.

7. The SyncWorkerListLogisticsProvABCSImpl transforms the SyncWorkerListEBM into the WorkerListLogisticsABM, and invokes the OTMWebService, which connects to the OTM application.

Updating Driver Profile Information

The purpose of this flow is to load into OTM the driver profile information that was updated in Oracle E-Business Suite.

This sequence diagram illustrates the synchronization of additional updates or creation of driver information:
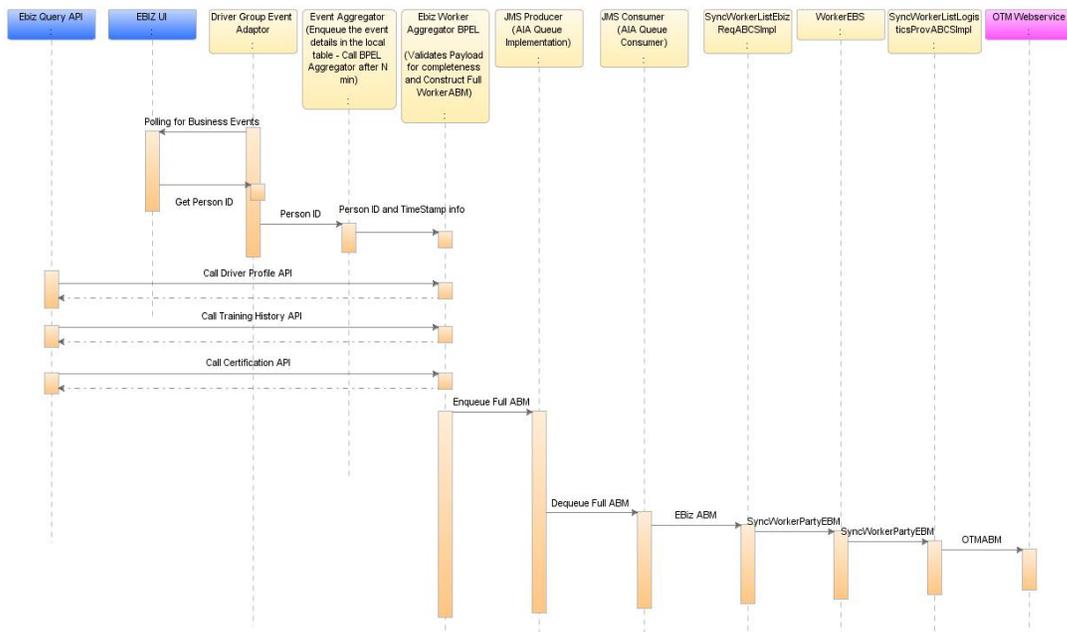
Updating driver information - aequence siagram

When you initiate the process, these events occur:

1. The SyncWorkerListEbizGroupEventAdapter service listens to the oracle.apps.per.person.profile Business Event. This business event is raised when a person is created in Oracle E-Business Suite or any data related to a person is updated. The event information is then passed to the SyncWorkerListEbizEventAggregator.

2. The SyncWorkerListEbizEventAggregator enqueues the events in an EBIZ_OBJECTS_EVENTS table through the DBAdapter. The procedure REGISTEREBIZEVENT.EVENTDETAILS, which fires for a period specified in the configuration, then reads the data from the table and invokes the SyncWorkerListEbizBPEL Aggregator.

3. The SyncWorkerListEbizBPELAggregator invokes the get_details API, which then returns the complete driver profile details. This service then checks for the completeness of the payload and invokes the get_training_details API and the get_certification_details API. All the messages generated by the API calls are then merged into one message into a payload.

4. The SyncWorkerListEbizJMSProducer service reads the complete payload from the SyncWorkerListEbizBPELAggregator and drops the messages into AIA_WorkerListJMSQueue individually.

5. The SyncWorkerListEbizJMSConsumer service listens to the AIA_WorkerListJMSQueue, dequeues the messages, and invokes the SyncWorkerListEbizReqABCSImpl with the WorkerListEBizABM.

6. The SyncWorkerListEbizReqABCSImpl service transforms the WorkerListEBizABM into the SyncWorkerListEBM and populates the EBM Header. The transformation does cross-referencing for system-specific values and invokes the WorkerEBS with the SyncWorkerList operation. The WorkerEBS is a routing ESB service with several operations on the WorkerEBO.

7. The WorkerEBS service with the SyncWorkerList operation routes the messages based on the CAVS flag to either the SyncWorkerListLogisticsProvABCSImpl service or the CAVS simulator.

8. The SyncWorkerListLogisticsProvABCSImpl transforms the SyncWorkerListEBM into the WorkerListLogisticsABM and invokes the OTMWebService, which connects to the OTM application.

Data Requirements

These are the data requirements for this integration.

The first name is mandatory in OTM. Though not mandatory for the interface to work and for synchronizing the records, the user must enter this value in the Oracle E-Business Suite.

The Driver Profile flow should subscribe to a group event in the Oracle E-Business Suite HRMS Workflow. The multiple events associated with the CRUD operations of the Driver Maintenance in HRMS are under one group event. This simplifies the processing of driver data from Oracle E-Business Suite to OTM. The AIA user should subscribe to the group event in the Oracle E-Business Suite workflow manually.

*   The subscription to the Oracle E-Business Suite Events should be updated. The rule data for the subscription to the Oracle E-Business Suite HRMS events should be updated from the key to the message to get the required data from the Oracle E-Business Suite Database.

*   All the business events listed here are mapped to the group event and should be enabled manually. If any new business event is mapped to this group, it should also be enabled.

    *   oracle.apps.per.api.person.update_person

    *   oracle.apps.per.api.phone.create_phone

    *   oracle.apps.per.api.phone.update_phone

    *   oracle.apps.per.api.phone.delete_phone

    *   oracle.apps.per.api.qualifications.create_qualification

    *   oracle.apps.per.api.qualifications.update_qualification

    *   oracle.apps.per.api.qualifications.delete_qualification

    *   oracle.apps.per.api.person.delete_person

- oracle.apps.per.api.person_address.create_person_address

- oracle.apps.per.api.person_address.update_person_address

- oracle.apps.per.api.person_address.update_pers_addr_with_style

- oracle.apps.per.api.assignment.update_cwk_asg

- oracle.apps.per.api.assignment.update_cwk_asg_criteria

- oracle.apps.per.api.assignment.update_emp_asg

- oracle.apps.per.api.assignment.update_emp_asg_criteria

- oracle.apps.per.api.ex_employee.actual_termination_emp

- ~~oracle.apps.per.api.assignment.actual_termination_emp_asg~~

- oracle.apps.per.api.assignment.suspend_emp_asg

- oracle.apps.per.api.assignment.suspend_cwk_asg

- oracle.apps.per.api.contingent_worker.terminate_placement

- oracle.apps.per.api.contingent_worker.reverse_terminate_placement

- oracle.apps.per.api.ex_employee.reverse_terminate_employee

- oracle.apps.per.api.cancel_hire.cancel_hire

- oracle.apps.per.api.delivery_methods.create_delivery_method

- oracle.apps.per.api.delivery_methods.delete_delivery_method

- oracle.apps.per.api.delivery_methods.update_delivery_method

- oracle.apps.per.api.employee.create_employee

- oracle.apps.per.api.contingent_worker.create_cwk

- oracle.apps.ota.api.cert_enrollment.create_cert_enrollment

- oracle.apps.ota.api.cert_enrollment.delete_cert_enrollment

- oracle.apps.ota.api.cert_enrollment.update_cert_enrollment

- oracle.apps.ota.api.delegate_booking.create_delegate_booking

- oracle.apps.ota.api.delegate_booking.update_delegate_booking

- oracle.apps.ota.api.delegate_booking.delete_delegate_booking

- Details for creating a subscription for the oracle.apps.per.person.groupevent group event are:

  - Action Type: Custom

  - On Error: Skip To Next

  - PL/SQL Rule Function: per_person_profile.raise_person_profile_event

  - Owner Name: Human Resources

- Owner Tag: PER

Subscriber

* System   HZ0MS211.US.ORACLE.COM

Personalize "Triggering Event"

Triggering Event

* Source Type   Local

* Event Filter   oracle.apps.per.person.groupevent

Source Agent

Personalize "Execution Condition"

Execution Condition

* Phase   50

Subscription with a phase 1- 99 are run synchronously , 100 and above are deferred.

* Status   Enabled

* Rule Data   Message

Personalize "Action Type"

Action Type

* Action Type   Custom

The Action Type controls the behaviour of the subscription

On Error   Skip to Next

Action

The Rule Function controls the behaviour of the subscription. Provide a Java Class name (<Package>.<Class>) for J
(<Package>.<Function>) for PL/SQL Rule Funtion.

Java Rule Function	
PL/SQL Rule Function	per_person_profile.raise_person_profile_event
Workflow Type	
Workflow Process	
	Choose a Workflow Type, before choosing the Workflow Process for that Type
Out Agent	
To Agent	
* Priority	Normal

Personalize "Subscription Parameters"

Subscription Parameters

Personalize Table: (WfNestedTableRegion)

Select	Name
	No results found.

Add Another Row

Enter parameters and their values with no spaces

Personalize "Documentation"

Documentation

* Owner Name	Human Resources
* Owner Tag	PER

- Attribute1 and Attribute2 are the flexfields available in the qualification of the Oracle E-Business Suite. These columns should be configured to the CDL_Issuing_State and the CDL_Issuing_Country_GID.

- The Assignment category should be the driver for the record to be synchronized to OTM.

Oracle E-Business Suite Interfaces

The Oracle E-Business Suite interfaces are:

- SyncWorkerListEbizInitialLoad

- SyncWorkerListEbizGroupEventAdapter

- SyncWorkerListEbizEventAggregator

- SyncWorkerListBPELAggregator

- SyncWorkerListEbizJMSProducer

- SyncWorkerListEBizJMSConsumer

> **For more information** about EBS web services, see Oracle E-Business Suite references: *Oracle E-Business Suite Electronic Technical Reference Manual (eTRM)* located on My Oracle Support under the Oracle E-Business Suite Information Center, Oracle Integration Repository located at http://irep.oracle.com, Oracle Applications Release 11.5.10+ Online Documentation Library, located on the Oracle Technology Network (http://www.oracle.com/technology/documentation/applications.html)

SyncWorkerListEbizInitialLoad

The SyncWorkerListEbizInitialLoad is a BPEL process that you invoke manually by providing the range of the person IDs that need to be synced to OTM as part of the initial load. For every person ID, this invokes the SyncWorkerListBPELAggregator service.

SyncWorkerListEbizGroupEventAdapter

The SyncWorkerListEbizGroupEventAdapter is an ESB process with a database adapter and routing services. This service raises the business events generated in Oracle E-Business Suite when a driver profile is created or updated. This service invokes a PL/SQL procedure named oracle.apps.per.person.profile, which enqueues the required data in the local table.

SyncWorkerListEbizEventAggregator

The SyncWorkerListEbizEventAggregator is a BPEL process that is triggered when any OAAdapter raises an Oracle E-Business Suite Event and enqueues the events in an EBIZ_OBJECTS_EVENTS table through the DBAdapter. The procedure named REGISTEREBIZEVENT.EVENTDETAILS reads the data from the table and invokes the SyncWorkerListBPELAggregator service.

SyncWorkerListBPELAggregator

The SyncWorkerListBPELAggregator is a BPEL process that the SyncWorkerListEventAggregator triggers upon listening to an Oracle E-Business Suite business event. This service invokes the get_person_details API, which returns the complete driver profile details. This service then checks for the completeness of the payload and then triggers the get_training_details API and the get_certification_details API. All the messages generated by the API calls are then merged into one message.

SyncWorkerListEbizJMSProducer

The SyncWorkerListEbizJMSProducer service is a BPEL process used for both initial and incremental loads. The Oracle E-Business Suite application invokes this service when:

* A new driver is created.

* An existing driver is updated

This service reads the complete payload from the SyncWorkerListBPELAggregator and drops the messages into the AIA_WorkerListJMSQueue individually.

SyncWorkerListEbizJMSConsumer

The SyncWorkerListEbizJMSConsumer is an ESB service that picks up the messages from the AIA_WorkerListJMSQueue and invokes the SyncWorkerListEbizReqABCSImpl service.

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. Once invoked, the Logistics web service immediately returns an acknowledgement with a transmission number. Once the processing is complete, it then sends a transmission report back indicating the success or the failure.

The application ABM details can be seen in the GLOG xsd with the Driver element.

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

Core AIA Components

The integration flow uses these components:

- WorkerEBO

- WorkerListEBM

- WorkerEBS

The core EBO and EBM XSD files can be located by EBO within this parent folder:
http://[HOST:PORT]/AIAComponents/EnterpriseObjectLibrary/Core/EBO/.

The core EBS WSDL files can be located by EBO within this parent folder:
http://[HOST:PORT]/AIAComponents/EnterpriseBusinessServiceLibrary/Core/EBO/.

For detailed documentation of individual EBOs and EBMs, click the **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 Application Integration Architecture – Foundation Pack: Development Guide*, "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 Application Integration Architecture – Foundation Pack: Integration Developer's Guide*, "Extensibility for AIA Artifacts."

Integration Services

These are the services delivered with this integration:

- SyncWorkerListEbizReqABCSImpl

- WorkerEBS

- SyncWorkerListLogisticsProvABCSImpl

SyncWorkerListEbizReqABCSImpl

The SyncWorkerListEbizReqABCSImpl is a BPEL process and a single operations service that has the WorkerEBS as a partner service. This service receives the WorkerListEbizABM message as a request and does not return a response to the calling service.

This service performs these actions:

- Accepts the WorkerListEbizABM message from Oracle E-Business Suite. This message contains a cross-reference for drivers, addresses, contacts, and driver information.

- Transforms the WorkerListEbizABM into the WorkerListEBM. While it is transforming from the ABM to the EBM, it looks up cross-references for the:

    - WORKER_ID

    - WORKER_CONTACTID

    - WORKER_DELIVERYMETHODID

    - WORKER_PHONEID

    - WORKER_QUALIFICATIONID

    - WORKER_BOOKINGID

    - WORKER_CERTIFICATIONENROLLID

    - WORKER_ADDRESS_ID

    - WORKER_ASSIGNMENTID

- Sends the WorkerListEBM message as an input to the SyncWorkerList operation in the WorkerEBS service.

These DVM lookups are used by this service:

- ADDRESS_COUNTRYID – Domain value mapping for country codes.

- STATE – Domain value mapping for state codes.

- QUALIFICATIONTYPE_ID – Domain value mapping for the qualification type.

- COMMUNICATION_METHOD – Domain value mapping for the communication method.

- PHONE_TYPE – Domain value mapping for phone types.

- WORKER_PERSON_TYPE_ID – Domain value mapping for person type ID.

- BLOOD_TYPE – Domain value mapping for blood type.

- WORKER_ASSIGNMENT_STATUS – Domain value mapping for assignment status.

- BUSINESSGROUP_DOMAIN – Domain value mapping for business group.

- CONTACT_GENDERCODE – Domain value mapping for gender.

- WORKER_ADDRESSTYPE – Domain value mapping for address type.

- WORKER_CERTIFICATIONID – Domain value mapping for certification ID.

- WORKER_PERIOD_STATUS_CODE – Domain value mapping for status.

- WORKER_COMPETENCE_ID – Domain value mapping for competence ID.

WorkerEBS

The WorkerEBS is the Enterprise Business Service that exposes all the enterprise operations related to the worker like create WorkerList, update WorkerList, synchronize WorkerList, and so on. This integration uses only the SyncWorkerList operation. This Enterprise Business Service routes the request to the appropriate provider like the SyncWorkerListLogisticsProvABCSImpl or the Composite Application Validation System (CAVS) based on the filter condition and operations. The EBS does updates and creates using the synchronization. This service does not do transformations. OTM determines whether this synchronize worker message is for a create or an update action.

For more information about this EBS, see *Oracle Application Integration Architecture – Foundation Pack: Integration Developer's Guide*, "Designing and Developing Enterprise Business Services" and *Oracle Application Integration Architecture – Foundation Pack: Concepts and Technologies Guide*, "Understanding Enterprise Business Services".

SyncWorkerListLogisticsProvABCSImpl

This SyncWorkerListLogisticsProvABCSImpl is a BPEL process that receives the SyncWorkerListEBM, transforms the message into the WorkerLogisticsABM, invokes the Logistics web service with the SyncWorkerListEBM, and waits for the transmission report from the Logistics web service. If the transmission report specifies that the transaction is successful, it supplies the cross-reference values; otherwise, it invokes the AIAAsyncErrorHandlingBPEL process to generate the error messages.

These DVM lookups are used by this service:

- ADDRESS_COUNTRYID - Domain value mapping for country codes.

- STATE – Domain value mapping for state codes.

- COMMUNICATION_METHOD – Domain value mapping for the communication method.

- BUSINESSGROUP_DOMAIN – Domain value mapping for business group.

- WORKER_CERTIFICATIONID – Domain value mapping for certification ID.

Chapter 3: Describing the Process Integration for Locations

This chapter provides an overview of the process integration for initial loading and incremental synchronization of training locations and covers:

- Training location integration flows

- Data requirements

- Oracle E-Business Suite interfaces

- Oracle Transportation Management (OTM) interfaces

- Core Application Integration Architecture (AIA) components

- Integration services

Process Integration for Location Overview

Drivers subscribe to training that requires a common location between OTM and Oracle E-Business Suite. Because Oracle E-Business Suite HR is the master record for all trainings, it also hosts the master record for all training locations. The process integration for locations supports these integration flows:

- **Initial Load of Training Location Information**: Extracts and loads initial training locations from Oracle E-Business Suite HR to OTM.

- **Updating Training Location Information**: Enables the synchronization of incremental creation and updates of the newly created or modified location information from Oracle E-Business Suite to OTM.

This diagram illustrates the overall flow for the process integration of locations:
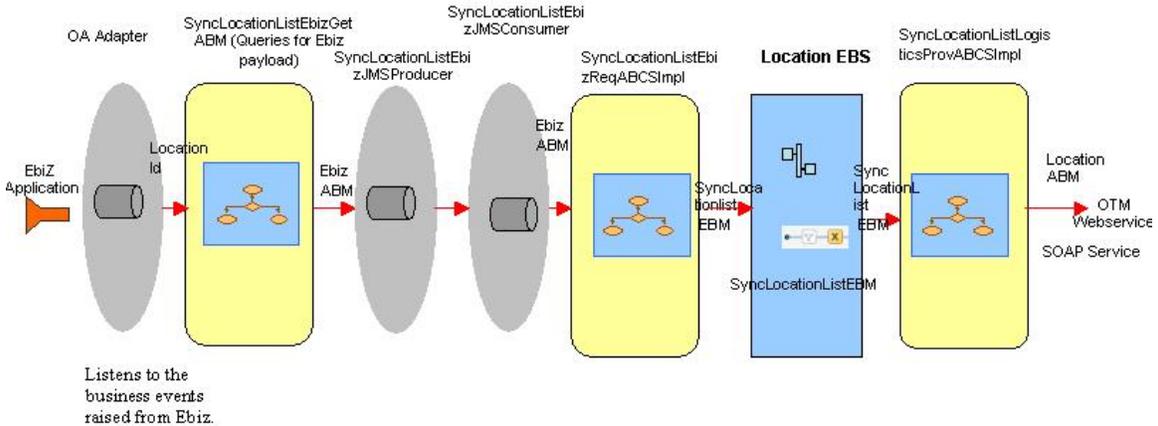
Location process integration flow

Prerequisites

All the required Configuration properties should be specified.

For more information about Configuration properties, see Chapter 6: Implementing the Oracle Transportation Driver Management Process Integration Pack.

Solution Assumptions and Constraints

These are the assumptions or constraints:

1. The Default Location Role in OTM is SHIPFROM/SHIPTO. Users should not change these default values in OTM. If a user changes the default value (for example, from SHIPFROM/SHIPTO to WAREHOUSE) the integration flow is not immediately affected. But if a subsequent update occurs for that location in Oracle E-Business Suite, a new record with the default value (SHIPFROM/SHIPTO) is created in OTM. Thus, multiple location role records exist for the same location in OTM.

2. Location is a stand-alone flow in this integration. Though the Driver Profile and Training Calendar flows have a foreign key of location ID, they do not synchronize the locations automatically. This is based on the assumption that the particular location concerned is already being interfaced with the OTM

Locations Integration Details

This integration flow uses these integration services:

*   SyncLocationListInitialLoadDBAdapter

*   CreateLocationListEbizAdapter

- UpdateLocationListEbizAdapter

- SyncLocationListEbizGetABM

- SyncLocationListEbizJMSProducer

- SyncLocationListEbizJMSConsumer

- SyncLocationListEbizReqABCSImpl

- LocationEBS

- SyncLocationListLogisticsProvABCSImpl

Initial Load of Location Information

The purpose of this flow is to load into OTM the location information that was created in Oracle E-Business Suite.

This sequence diagram illustrates the loading of location information from Oracle E-Business Suite to OTM location integration flow.
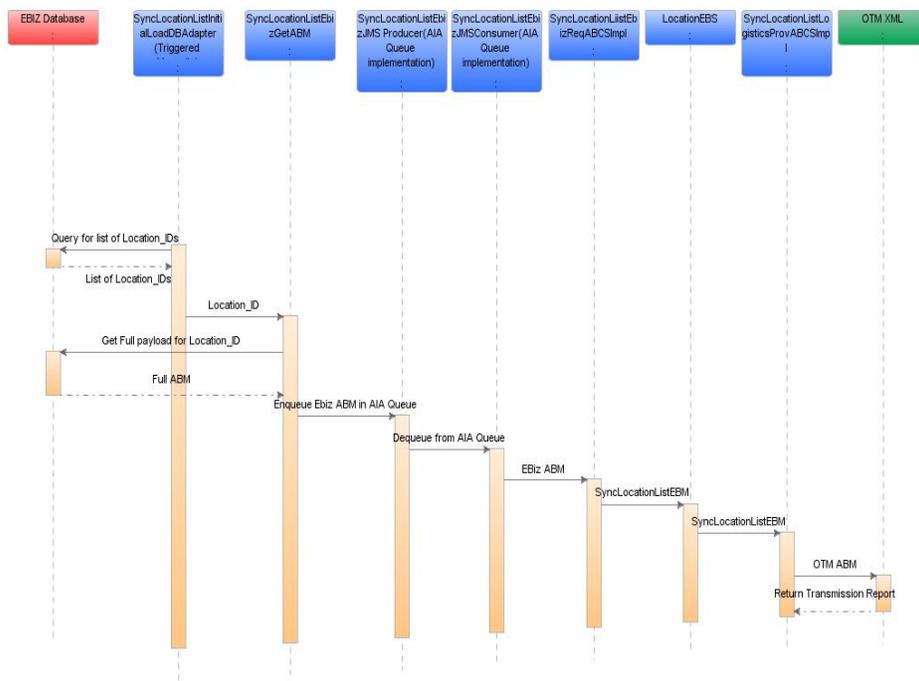
Initial load of locations

When you initiate the process, these events occur:

1. You initiate the SyncLocationListInitialLoadDBAdapter service manually by providing the range of the Start_ID and End_ID that need to be synced to OTM as part of the initial load. For every Location_ID, this service invokes the SyncLocationListEbizGetABM.

2. The SyncLocationListEbizGetABM invokes the get_location_details API, which then returns the complete location details. This service then checks for the completeness of the payload and drops the messages into AIA_LOCATIONJMSQUEUE.

3. The SyncLocationListEbizJMSProducer service reads the complete payload from the SyncLocationListEbizGetABM and drops the messages into AIA_LOCATIONJMSQUEUE.

4. The SyncLocationListEbizJMSConsumer service listens to the AIA_LOCATIONJMSQUEUE, dequeues the messages, and invokes the SyncLocationListEbizReqABCSImpl with the LocationEBizABM.

5. The SyncLocationListEbizReqABCSImpl service transforms the LocationEBizABM into the SyncLocationListEBM and populates the EBM Header. The transformation does cross-referencing for system-specific values and invokes the LocationEBS with the SyncLocationList operation. The LocationEBS is a routing ESB service with several operations on the LocationEBO.

6. The LocationEBS service with the SyncLocationList operation routes the messages based on the CAVS flag to either the SyncLocationListLogisticsProvABCSImpl service or the CAVS simulator.

7. The SyncLocationListLogisticsProvABCSImpl transforms the SyncLocationListEBM into the LogisticsABM and invokes the OTM web service, which connects to the OTM application.

Updating Location Information

The locations that are created or upgraded in the Oracle E-Business Suite must be updated in the OTM.

This sequence diagram illustrates the incremental loading of location information from Oracle E-Business Suite to OTM.
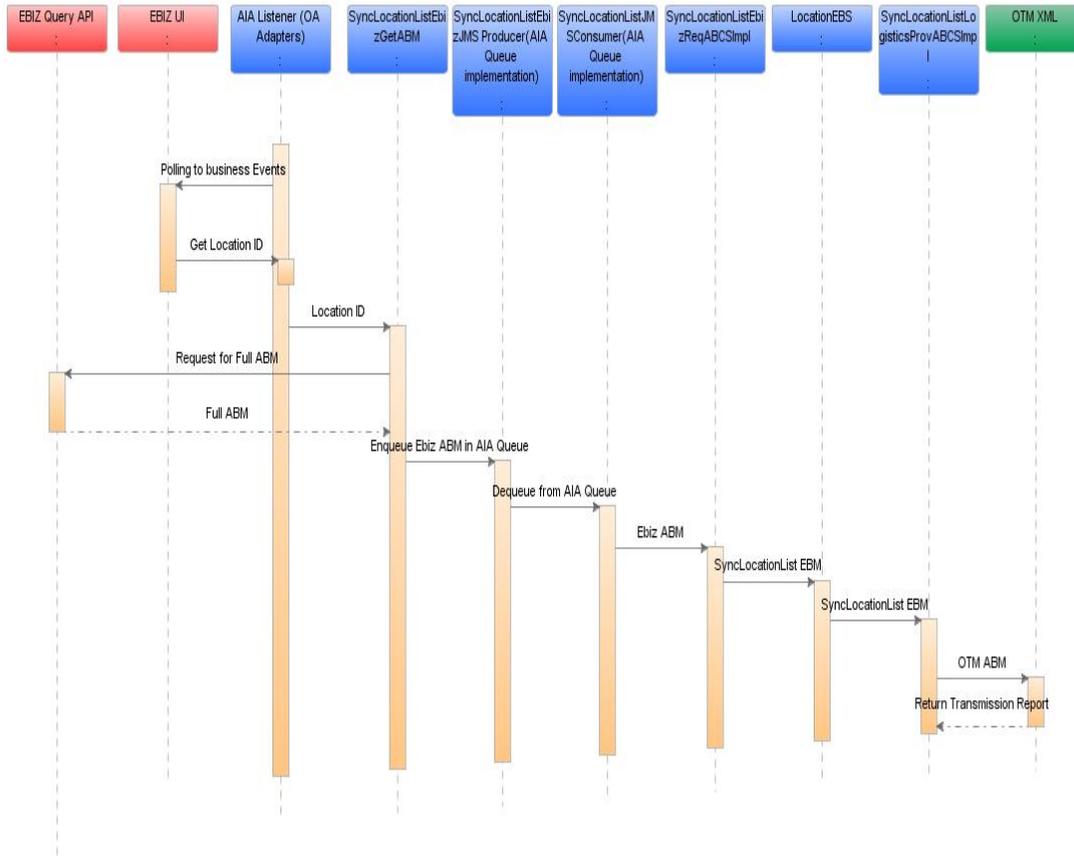
Updating locations

When you initiate the process, these events occur:

1. In the case of new locations, the CreateLocationListEbizAdapter service listens to the oracle.apps.per.api.location.create_location business event. This business event is raised when a location is created in Oracle E-Business Suite. The event information is then passed to the SyncLocationListEbizGetABM.

2. In the case of updates to existing locations, the UpdateLocationListEbizAdapter service listens to the oracle.apps.per.api.location.update_location business event. This business event is raised when a location is updated in Oracle E-Business Suite. The event information is then passed to the SyncLocationListEbizGetABM.

3. The SyncLocationListEbizGetABM invokes the get_location_details API, which then returns the complete location details. This service then checks for the completeness of the payload and drops the messages into AIA_LOCATIONJMSQUEUE.

4. The SyncLocationListEbizJMSProducer service reads the complete payload from the SyncLocationListEbizGetABM and drops the messages into AIA_LOCATIONJMSQUEUE.

5. The SyncLocationListEbizJMSConsumer service listens to the AIA_LOCATIONJMSQUEUE, dequeues the messages, and invokes the SyncLocationListEbizReqABCSImpl with the LocationEBizABM.

6. The SyncLocationListEbizReqABCSImpl service transforms the LocationEBizABM into the SyncLocationListEBM and populates the EBM header. The transformation does cross-referencing for system-specific values and invokes the LocationEBS with the SyncLocationList operation. The LocationEBS is a routing ESB service with several operations on the LocationEBO.

7. The LocationEBS service with the SyncLocationList operation routes the messages based on the composite application validation system (CAVS) flag to either the SyncLocationListLogisticsProvABCSImpl service or the CAVS simulator.

8. The SyncLocationListLogisticsProvABCSImpl transforms the SyncLocationListEBM into the LogisticsABM and invokes the OTM web service, which connects to the OTM application.

Data Requirements

The location integration has no data requirements.

Oracle E-Business Suite Interfaces

For the Location integration flow, these are the Oracle E-Business Suite interfaces:

- SyncLocationListInitialLoadDBAdapter

- CreateLocationListEbizAdapter

- UpdateLocationListEbizAdapter

- SyncLocationListEbizGetABM

- SyncLocationListEbizJMSProducer

- SyncLocationListEbizJMSConsumer

For more information about EBS web services, see Oracle E-Business Suite references: *Oracle E-Business Suite Electronic Technical Reference Manual (eTRM)* located on My Oracle Support under the Oracle E-Business Suite Information Center, Oracle Integration Repository located at http://irep.oracle.com, and Oracle Applications Release 11.5.10+ Online Documentation Library, located on the Oracle Technology Network (http://www.oracle.com/technology/documentation/applications.html)

SyncLocationListInitialLoadDBAdapter

The SyncLocationListInitialLoadDBAdapter service is used for initial loads and is triggered manually. This service reads all the Location IDs from Oracle E-Business Suite database within the range specified by the input values. These Location IDs are passed to the SyncLocationListEbizGetABM for further processing.

CreateLocationListEbizAdapter

The CreateLocationListEbizAdapter service is used for incremental changes. This service listens to the oracle.apps.per.api.location.create_location business event and then calls the SyncLocationListEbizGetABM for further processing of the event message.

UpdateLocationListEbizAdapter

The UpdateLocationListEbizAdapter service is used for incremental changes. This service listens to the oracle.apps.per.api.location.update_location business event and calls the SyncLocationListEbizGetABM BPEL process for further processing of the event message.

SyncLocationListEbizGetABM

The SyncLocationListEbizGetABM service is called by the SyncLocationListInitialLoadDBAdapter for initial loads and is called from the Oracle E-Business Suite adapters for incremental changes. This service reads the full Location information from the Oracle E-Business Suite database using the get_location_details API and drops the messages into the AIA_LOCATIONJMSQUEUE.

SyncLocationListEbizJMSProducer

The SyncLocatoinListEbizJMSProducer service is used for enqueuing Oracle E-Business Suite payloads in the AIA layer. This service pushes the messages to the AIA_LOCATIONJMSQUEUE that is picked up by the SyncLocationListEbizJMSConsumer service.

SyncLocationListEbizJMSConsumer

The SyncLocationListEbizJMSConsumer service is used for picking up the Oracle E-Business Suite payload from the AIA queue. This service picks up the messages from the AIA_LOCATIONJMSQUEUE and invokes the SyncLocationListEbizReqABCSImpl service.

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. Once invoked, the Logistics web service immediately returns an acknowledgement with a transmission number. Once the processing is complete, it then sends a transmission report back indicating the success or the failure.

The Application ABM details can be seen in the GLOG xsd with specific element as Location.

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

Core AIA Components

The integration flow uses these components:

- LocationEBO

- SyncLocationListEBM

- LocationEBS

The core EBO and EBM XSD files can be located by EBO within this parent folder: http://[HOST:PORT]/AIAComponents/EnterpriseObjectLibrary/Core/EBO/.

The core EBS WSDL files can be located by EBO within this parent folder: http://[HOST:PORT]/AIAComponents/EnterpriseBusinessServiceLibrary/Core/EBO/.

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

For more information about using the Oracle Enterprise Repository and configuring it to provide the AIA Reference Doc link, see *Oracle Application Integration Architecture – Foundation Pack: Development Guide*, "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 Application Integration Architecture – Foundation Pack: Integration Developer's Guide*, "Extensibility for AIA Artifacts".

Integration Services

These are the services delivered with this integration:

- SyncLocationListEbizReqABCSImpl

- LocationEBS

- SyncLocationListLogisticsProvABCSImpl

SyncLocationListEBizReqABCSImpl

The SyncLocationListEbizReqABCSImpl is a BPEL process and a single operations service that has the LocationEBS as a partner service. This service receives the LocationEbizABM message as a request and does not return a response to the calling service.

This service performs these actions:

- Accepts the LocationEbizABM message from Oracle E-Business Suite. This message contains a cross-reference for location ID.

- Transforms the LocationEbizABM into the SyncLocationListEBM. While it is transforming from the ABM to the EBM, cross-references are looked up for the LOCATION_ID.

- Sends the LocationListEBM message as an input to the SyncLocationList operation in the LocationEBS service.

These DVM lookups are used by this service:

- ADDRESS_COUNTRYID - Domain value mapping for country codes.

- STATE – Domain value mapping for the state codes.

LocationEBS

The LocationEBS is the Enterprise Business Service that exposes all the enterprise operations related to the location, such as create location, update location, synchronize location, and so forth. This integration uses only the SyncLocationList operation. This Enterprise Business Service routes the request to the appropriate provider like the SyncLocationListLogisticsProvABCSImpl or the Composite Application Validation System (CAVS) based on the filter condition and operations. The service does updates and creates using the synchronization. It does no transformations in this service. OTM determines whether this synchronize location message is for a create or an update action.

For more information about this EBS, see *Oracle Application Integration Architecture – Foundation Pack: Integration Developer's Guide*, "Designing and Developing Enterprise Business Services" and *Oracle Application Integration Architecture – Foundation Pack: Concepts and Technologies Guide*, "Understanding Enterprise Business Services."

SyncLocationListLogisticsProvABCSImpl

This SyncLocationListLogisticsProvABCSImpl is a BPEL process, which receives the SyncLocationListEBM, transforms the message into the LogisticsABM, invokes the Logistics web service with the SyncLocationListEBM, and waits for the transmission report from the Logistics web service. If the transmission report specifies that the transaction is successful, it supplies the cross-reference values; otherwise, it invokes the AIAAsyncErrorHandlingBPEL process to generate the error messages.

These DVM lookups are used by this service:

- ADDRESS_COUNTRYID - Domain value mapping for country codes.

- STATE – Domain value mapping for the state codes.

Chapter 4: Describing Process Integration for Training and Absence Calendar

This chapter provides an overview of the process integration for training and absence calendar and covers:

- Training and absence calendar integration details.

- Data requirements.

- Oracle E-Business Suite interfaces.

- Oracle transportation management interfaces.

- Core Application Integration Architecture (AIA) components.

- Integration services.

Process Integration for Training and Absence Calendar Overview

While the driver details exist in the HRMS system as an employee or contractor with appropriate data, OTM also needs to hold driver data because logistics-specific attributes may exist that are to be maintained. You must send driver profile data such as skills, competencies, licenses, and certifications along with other data to OTM. Training and Absence Calendar enables customers to use best-of-breed Oracle E-Business Suite HRMS on in addition to Oracle Transportation Management. Training and Absence Calendar reference data should be published from Oracle E-Business Suite HR and Learning Management to Oracle Transportation Management

The process integration for training and absence calendar supports these integration flows:

- **Initial Loading of Training and Absence Calendar Information**: Training and Absence Calendar information is published and sent from Oracle E-Business Suite HR and Learning Management to the OTM at implementation time.

- **Updating Training and Absence Calendar Information**: Enables the synchronization of incremental creation and updates of the newly created or modified training and Absence Calendar information from Oracle E-Business Suite HR and Learning Management into OTM.

This diagram illustrates the overall flow for the process integration of Training and Absence Calendar:
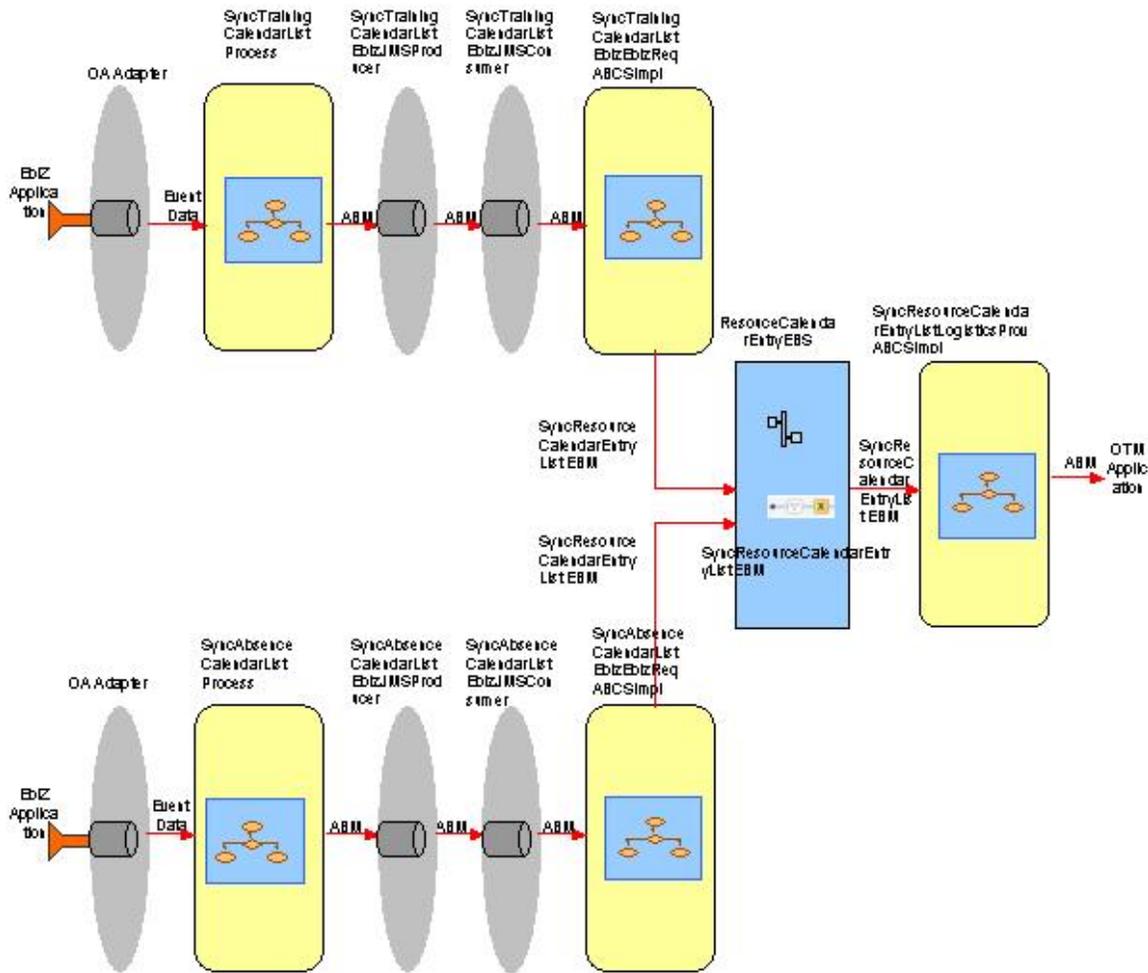
Training and Absence Calendar process Integration flow

Prerequisites

These are the prerequisites for the process integration for suppliers:

- Drivers must be synchronized between Oracle E-Business Suite and OTM.

- Training Locations must be synchronized to OTM for all training events.

- All the required Configuration properties should also be specified.

For more information about Configuration properties, see Chapter 6: Implementing the Oracle Transportation Driver Management Process Integration Pack.

Solution Assumptions and Constraints

These are the assumptions and constraints:

1. A business group can have only one unique name for Domain.

2. The Calendar Event Type is manually maintained in both Oracle E-Business Suite and OTM and mapped using DVM.

Training and Absence Calendar Integration Details

This integration flow uses these integration services:

- SyncTrainingCalendarListInitialLoadDBAdapter

- SyncAbsenceCalendarListInitialLoadDBAdapter

- CreateDelegateBookingEbizAdapter

- CreateAbsenceAttendanceEbizAdapter

- UpdateDelegateBookingEbizAdapter

- UpdateAbsenceAttendanceEbizAdapter

- UpdateClassScheduleEbizAdapter

- UpdateLocationEbizAdapter

- UpdateTrainingCenterandLocationEbizAdapter

- DeleteDelegateBookingEbizAdapter

- DeleteAbsenceAttendanceEbizAdapter

- SyncTrainingCalendarListProcess

- SyncAbsenceCalendarListProcess

- SyncTrainingCalendarListEbizJMSProducer

- SyncTrainingCalendarListEbizJMSConsumer

- SyncAbsenceCalendarListEbizJMSProducer

- SyncAbsenceCalendarListEbizJMSConsumer

- SyncTrainingCalendarListEbizReqABCSImpl

- SyncAbsenceCalendarListEbizReqABCSImpl

- ResourceCalendarEntryEBS

- SyncResourceCalendarEntryListLogisticsProvABCSImpl

Initial Load of the Training Calendar

The purpose of this flow is to load into OTM the training calendar that was created in Oracle E-Business Suite Learning Management.

This sequence diagram illustrates the initial loading of the training calendar into OTM.
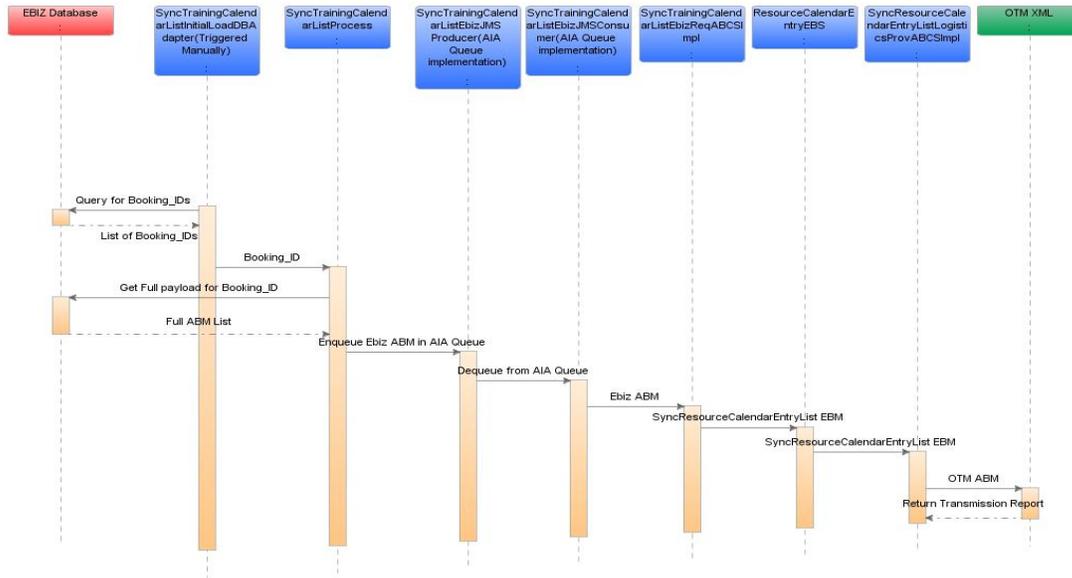
Initial load of training calendar

When you initiate the process, these events occur:

1. The SyncTrainingCalendarListInitialLoadDBAdapter service is initiated manually by providing the range of the Start_ID and End_ID that need to be synced to OTM, as part of the initial load. For every Booking_ID this service invokes the SyncTrainingCalendarListProcess.

2. The SyncTrainingCalendarListProcess reads all the training delegate bookings information from the Oracle E-Business database based on the input values provided for the get_training_details API and drops the output messages from these APIs into AIA_TRGRESCALJMSQUEUE through the SyncTrainingCalendarListEbizJMSProducer.

3. The SyncTrainingCalendarListEbizJMSProducer service reads the complete payload from the SyncTrainingCalendarListProcess and drops the messages into AIA_TRGRESCALJMSQUEUE.

4. The SyncTrainingCalendarListEbizJMSConsumer service listens to the AIA_TRGRESCALJMSQUEUE, dequeues the messages, and invokes the SyncTrainingCalendarListEbizReqABCSImpl with the TrainingCalendarListEbizABM.

5. The SyncTrainingCalendarListEbizReqABCSImpl service transforms the TrainingCalendarListEbizABM into the SyncResourceCalendarEntryListEBM and populates the EBM header. The transformation does cross-referencing for system-specific values and invokes the ResourceCalendarEntryEBS with the SyncResourceCalendarEntryList operation. The ResourceCalendarEntryEBS is a routing ESB service with several operations on the ResourceCalendarEntryEBO.

6. The ResourceCalendarEntryEBS service with the SyncResourceCalendarEntryList operation routes the messages based on the CAVS flag to either the SyncResourceCalendarEntryListLogisticsProvABCSImpl service or the CAVS simulator.

7. The SyncResourceCalendarEntryListLogisticsProvABCSImpl transforms the SyncResourceCalendarEntryListEBM into the LogisticsABM and invokes the OTM web service, which connects to the OTM application.

Updating the Training Calendar

The purpose of this flow is to load into OTM the training calendar that was updated in Oracle E-Business Suite learning management.

This sequence diagram illustrates the incremental loading of the training calendar into OTM.

Updating the training calendar

When you initiate the process, these events occur:

1. In the case of new enrollments, the CreateDelegateBookingEbizAdapter service listens to the oracle.apps.per.api.location.delegate_booking.create_delegate_booking business event. This business event is raised when a new training enrollment is created in Oracle E-Business Suite. The event information is then passed to the SyncTrainingCalendarListProcess.

2. In the case of updates to existing training enrollments, the UpdateDelegateBookingEbizAdapter service listens to the oracle.apps.ota.api.delegate_booking.update_delegate_booking business event. This business event is raised when a training enrollment is updated in Oracle E-Business Suite. The event information is then passed to the SyncTrainingCalendarListProcess.

3. In the case of updates to existing training class schedules, the UpdateClassScheduleEbizAdapter service listens to the oracle.apps.ota.api.event_api.update_class_schedule business event. This business event is raised when a training class schedule is updated in Oracle E-Business. The event information is then passed to the SyncTrainingCalendarListProcess.

4. In the case of updates to a location for a class within a training enrollment, the UpdateLocationEbizAdapter service listens to the oracle.apps.ota.api.event_api.update_location business event. This business event is raised when a location for a class within a training enrollment is updated in Oracle E-Business Suite. The event information is then passed to the SyncTrainingCalendarListProcess.

5. In the case of updates to a training center and a location for a training enrollment, the UpdateTrainingCenterandLocationEbizAdapter service listens to the oracle.apps.ota.api.event_api.update_trng_cntr_and_location business event. This business event is raised when a training center and a location for a training enrollment is updated in Oracle E-Business Suite. The event information is then passed to the SyncTrainingCalendarListProcess.

6. In the case that a training enrollment is deleted, the DeleteDelegateBookingEbizAdapter service listens to the oracle.apps.ota.api.delegate_booking.delete_delegate_booking business event. This business event is raised when a training enrollment is deleted in Oracle E-Business Suite. The event information is then passed to the SyncTrainingCalendarListProcess.

7. The SyncTrainingCalendarListProcess reads all the training delegate bookings and training updates information from the Oracle E-Business database based on the input values provided for the get_training_details API and drops the output messages from these APIs into AIA_TRGRESCALJMSQUEUE through the SyncTrainingCalendarListEbizJMSProducer.

8. The SyncTrainingCalendarListEbizJMSProducer service reads the complete payload from the SyncTrainingCalendarListProcess and drops the messages into AIA_TRGRESCALJMSQUEUE.

9. The SyncTrainingCalendarListEbizJMSConsumer service listens to the AIA_TRGRESCALJMSQUEUE, dequeues the messages, and invokes the SyncTrainingCalendarListEbizReqABCSImpl with the TrainingCalendarListEbizABM.

10. The SyncTrainingCalendarListEbizReqABCSImpl service transforms the TrainingCalendarListEbizABM into the SyncResourceCalendarEntryListEBM and populates the EBM header. The transformation does cross-referencing for system -specific values and invokes the ResourceCalendarEntryEBS with the SyncResourceCalendarEntryList operation. The ResourceCalendarEntryEBS is a routing ESB service with several operations on the ResourceCalendarEntryEBO.l

11. The ResourceCalendarEntryEBS service with the SyncResourceCalendarEntryList operation routes the messages based on the CAVS flag to either the SyncResourceCalendarEntryListLogisticsProvABCSImpl service or the Composite Application Validation System (CAVS) simulator.

12. The SyncResourceCalendarEntryListLogisticsProvABCSImpl transforms the SyncResourceCalendarEntryListEBM into the LogisticsABM and invokes the OTM web service, which connects to the OTM application.

Initial Load of the Absence Calendar

The purpose of this flow is to load into OTM the absence calendar that was created in Oracle E-Business Suite.

This sequence diagram illustrates the initial loading of the absence calendar into OTM.
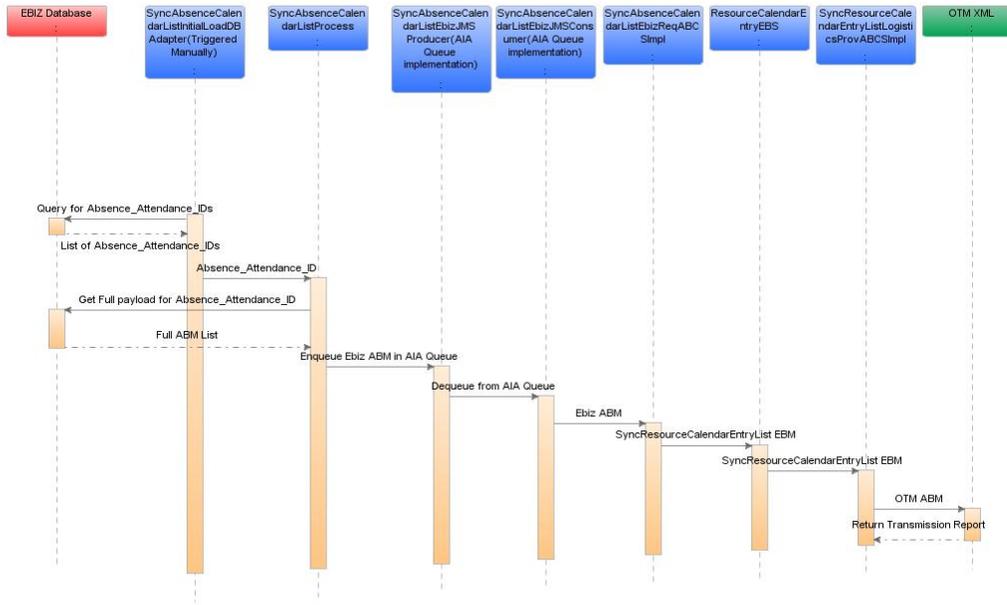
Initial load of absence calendar

When you initiate the process, these events occur:

1. The SyncAbsenceCalendarListInitialLoadDBAdapter service is initiated manually by providing the range of the Start_ID and End_ID that need to be synced to OTM, as part of the initial load. For every Absence Attendance IDs this service invokes the SyncAbsenceCalendarListProcess.

2. The SyncAbsenceCalendarListProcess reads the absence information, using Absence Attendance from the Oracle E-Business database based on the input values provided for the get_absence_details API and drops the output messages from these APIs into AIA_ABSRESCALJMSQUEUE through the SyncAbsenceCalendarListEbizJMSProducer.

3. The SyncAbsenceCalendarListEbizJMSProducer service reads the complete payload from the SyncAbsenceCalendarListProcess and drops the messages into AIA_ABSRESCALJMSQUEUE.

4. The SyncAbsenceCalendarListEbizJMSConsumer service listens to the AIA_ABSRESCALJMSQUEUE, dequeues the messages, and invokes the SyncAbsenceCalendarListEbizReqABCSImpl with the AbsenceCalendarListEbizABM.

5. The SyncAbsenceCalendarListEbizReqABCSImpl service transforms the AbsenceCalendarListEbizABM into the SyncResourceCalendarEntryListEBM and populates the EBM header. The transformation does cross-referencing for system -specific values and invokes the ResourceCalendarEntryEBS with the SyncResourceCalendarEntryList operation. The ResourceCalendarEntryEBS is a routing ESB service with several operations on the ResourceCalendarEntryEBO.

6. The ResourceCalendarEntryEBS service with the SyncResourceCalendarEntryList operation routes the messages based on the CAVS flag to either the SyncResourceCalendarEntryListLogisticsProvABCSImpl service or the CAVS simulator.

7. The SyncResourceCalendarEntryListLogisticsProvABCSImpl transforms the SyncResourceCalendarEntryListEBM into the LogisticsABM and invokes the OTM web service, which connects to the OTM application.

Updating the Absence Calendar

The purpose of this flow is to load into OTM the absence calendar that was updated in Oracle E-Business Suite.

This sequence diagram illustrates the incremental loading of the absence calendar into OTM.


Updating the absence calendar

When you initiate the process, these events occur:

1. In the case of new absences, the CreateAbsenceAttendanceEbizAdapter service listens to the oracle.apps.per.api.person_absence.create_person_absence business Event. This business event is raised when a new absence is created in Oracle E-Business Suite. The event information is then passed to the SyncAbsenceCalendarListProcess.

2. In the case of updates to existing absences, the UpdateAbsenceAttendanceEbizAdapter service listens to the oracle.apps.per.api.person_absence.update_person_absence business event. This business event is raised when an absence is updated in Oracle E-Business Suite. The event information is then passed to the SyncAbsenceCalendarListProcess.

3. In the case that an absence is deleted, the DeleteAbsenceAttendanceEbizAdapter service listens to the oracle.apps.per.api.person_absence.delete_person_absence business event. This business event is raised when an absence is deleted in Oracle E-Business Suite. The event information is then passed to the SyncAbsenceCalendarListProcess.

4. The SyncAbsenceCalendarListProcess reads all the absences and updates to the absences from the Oracle E-Business database based on the input values provided for the get_absence_details API and drops the output messages from these APIs into AIA_ABSRESCALJMSQUEUE through the SyncAbsenceCalendarListEbizJMSProducer.

5. The SyncAbsenceCalendarListEbizJMSProducer service reads the complete payload from the SyncAbsenceCalendarListProcess and drops the messages into AIA_ABSRESCALJMSQUEUE.

6. The SyncAbsenceCalendarListEbizJMSConsumer service listens to the AIA_ABSRESCALJMSQUEUE, dequeues the messages, and invokes the SyncAbsenceCalendarListEbizReqABCSImpl with the AbsenceCalendarListEbizABM.

7. The SyncAbsenceCalendarListEbizReqABCSImpl service transforms the AbsenceCalendarListEbizABM into the SyncResourceCalendarEntryListEBM and populates the EBM header. The transformation does cross-referencing for system-specific values and invokes the ResourceCalendarEntryEBS with the SyncResourceCalendarEntryList operation. The ResourceCalendarEntryEBS is a routing ESB service with several operations on the ResourceCalendarEntryEBO.

8. The ResourceCalendarEntryEBS service with the SyncResourceCalendarEntryList operation routes the messages based on the CAVS flag to either the SyncResourceCalendarEntryListLogisticsProvABCSImpl service or the CAVS simulator.

9. The SyncResourceCalendarEntryListLogisticsProvABCSImpl transforms the SyncResourceCalendarEntryListEBM into the LogisticsABM and invokes the OTM web service, which connects to the OTM application.

Data Requirements

The end date and the end time are mandatory in OTM. If the driver enrolls for training, the class to which the driver enrolls should have an end date to have this enrollment synced to OTM.

Oracle E-Business Suite Interfaces

For the training and absence calendar integration flow, these are the Oracle E-Business Suite interfaces:

- SyncTrainingCalendarListInitialLoadDBAdapter
- SyncAbsenceCalendarListInitialLoadDBAdapter
- CreateDelegateBookingEbizAdapter
- CreateAbsenceAttendanceEbizAdapter
- UpdateDelegateBookingEbizAdapter
- UpdateAbsenceAttendanceEbizAdapter
- UpdateClassScheduleEbizAdapter
- UpdateLocationEbizAdapter
- UpdateTrainingCenterandLocationEbizAdapter
- DeleteDelegateBookingEbizAdapter
- DeleteAbsenceAttendanceEbizAdapter
- SyncTrainingCalendarListProcess
- SyncAbsenceCalendarListProcess
- SyncTrainingCalendarListEbizJMSProducer
- SyncTrainingCalendarListEbizJMSConsumer

- SyncAbsenceCalendarListEbizJMSProducer

- SyncAbsenceCalendarListEbizJMSConsumer

- SyncTrainingCalendarListEbizReqABCSImpl

- SyncAbsenceCalendarListEbizReqABCSImpl

For more information about EBS web services, see Oracle E-Business Suite references: *Oracle E-Business Suite Electronic Technical Reference Manual (eTRM)* located on My Oracle Support under the Oracle E-Business Suite Information Center,
Oracle Integration Repository located at http://irep.oracle.com, and Oracle Applications Release 11.5.10+ Online Documentation Library, located on the Oracle Technology Network (http://www.oracle.com/technology/documentation/applications.html)

SyncTrainingCalendarListInitialLoadDBAdapter

The SyncTrainingCalendarListInitialLoadDBAdapter service is used for initial loads and is triggered manually. The input to this process should be the Start_ID and the End_ID. This service reads all the Booking ID information from the Oracle E-Business Suite database based on the input values and passes this information to the SyncTrainingCalendarListProcess for further processing.

SyncAbsenceCalendarListInitialLoadDBAdapter

The SyncAbsenceCalendarListInitialLoadDBAdapter service is triggered manually for initial loads. The input to this process is Start_ID and the End_ID. This service reads all the Absence Attendance ID information from the Oracle E-Business Suite database based on the input values and passes this information to the SyncAbsenceCalendarListProcess for further processing.

CreateDelegateBookingEbizAdapter

The CreateDelegateBookingEbizAdapter service is used for incremental changes. When any Training Enrollment is created, the
oracle.apps.ota.api.delegate_booking.create_delegate_booking business event queries the Oracle E-Business Suite database for Delegate Booking with the Booking_ID and invokes the SyncTrainingCalendarListProcess.

CreateAbsenceAttendanceEBizAdapter

The CreateAbsenceAttendanceEBizAdapter service is used for incremental changes. Whenever an absence is created, this service calls the
oracle.apps.per.api.person_absence.create_person_absence business event to query the Oracle E-Business Suite database for attendance ID and invokes the SyncAbsenceCalendarListProcess service.

UpdateDelegateBookingEbizAdapter

The UpdateDelegateBookingEbizAdapter service is used for incremental changes. When any training enrollment is created, the oracle.apps.ota.api.delegate_booking.update_delegate_booking business event queries the Oracle E-Business Suite database for Delegate Booking with the booking_ID and invokes SyncTrainingCalendarListProcess.

UpdateClassScheduleEbizAdapter

This service is used for incremental changes. This service raises the oracle.apps.ota.api.event_api.update_class_schedule business event when a class schedule of a training enrollment is updated and invokes the SyncTrainingCalendarListProcess.

UpdateLocationListEbizAdapter

The UpdateLocationListEbizAdapter is used for incremental changes. When a location for the class in a training enrollment is updated, this service calls the oracle.apps.ota.api.event_api.update_location business event to query the Oracle E-Business Suite database for delegate booking and invokes the SyncTrainingCalendarListProcess.

UpdateTrainingCenterandLocationEBizAdapter

The UpdateTrainingCenterandLocationEBizAdapter raises the oracle.apps.ota.api.event_api.update_trng_cntr_and_location business event when a training center and location for the training enrollment is updated; this event queries the Oracle E-Business Suite database for delegate booking and invokes the SyncTrainingCalendarListProcess.

UpdateAbsenceAttendanceEBizAdapter

The UpdateAbsenceAttendanceEbizAdapter service is used for incremental changes. This service listens to oracle.apps.per.api.person_absence.update_person_absence business event. Whenever an absence is updated, this business event is triggered, which contains absence_attendance_ID. This service invokes the SyncAbsenceCalendarListProcess service.

DeleteDelegateBookingEBizAdapter

When any location for the training enrollment is deleted, the DeleteDelegateBookingEBizAdapter service raises the oracle.apps.ota.api.delegate_booking.delete_delegate_booking business event and invokes the SyncTrainingCalendarListProcess service.

DeleteAbsenceAttendanceEBizAdapter

The DeleteAbsenceAttendanceEbizAdapter service is used for incremental changes. This service listens to the oracle.apps.per.api.person_absence.delete_person_absence business event. Whenever an absence is deleted, this business event is triggered, which contains the absence_attendance_ID. This service invokes the SyncAbsenceCalendarListProcess service.

SyncTrainingCalendarListProcess

This service is used for initial loads through the SyncTrainingCalendarListInitialLoadDBAdapter and is called from the Oracle E-business Suite adapters. This service reads all the training information from the Oracle E-Business Suite database using the get_training_details API and drops the output messages into the AIA_TRGRESCALJMSQUEUE through the SyncTrainingCalendarListEbizJMSProducer service.

SyncAbsenceCalendarListProcess

This service is used for initial loads through the SyncAbsenceCalendarListInitialLoadDBAdapter and is called from the Oracle E-business Suite adapters for incremental changes. This Service reads all the absence information from the Oracle E-Business Suite database using the get_absence_details API and drops the output messages into the AIA_ABSRESCALJMSQUEUE through the SyncAbsenceCalendarListEbizJMSProducer service.

SyncTrainingCalendarListEbizJMSProducer

The SyncTrainingCalendarListEbizJMSProducer is an ESB used for both initial and the incremental loads. This service pushes the messages to AIA_TRGRESCALJMSQUEUE and is picked up by the SyncTrainingCalendarListEbizReqABCSImp service.

SyncTrainingCalendarListEbizJMSConsumer

The SyncTrainingCalendarListEbizJMSConsumer service is used for initial and incremental loads. This service picks up the messages from AIA_TRGRESCALJMSQUEUE and invokes the SyncTrainingCalendarListEbizReqABCSImpl service.

SyncAbsenceCalendarListEbizJMSProducer

The SyncAbsenceCalendarListEbizJMSProducer is an ESB service. This service is used for both initial and incremental loads. This service pushes the messages from the AIA_ABSRESCALJMSQUEUE and invokes the SyncAbsenceCalendarListEbizReqABCSImpl service.

SyncAbsenceCalendarListEbizJMSConsumer

This service is used for initial and incremental loads. This service picks up the messages from the AIA_ABSRESCALJMSQUEUE and invokes the SyncAbsenceCalendarListEbizReqABCSImpl service.

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. Once invoked, the logistics web service immediately returns an acknowledgement with a transmission number. Once the processing is complete, it then sends a transmission report back indicating the success or the failure.

The application business message (ABM) details can be seen in the GLOG xsd with specific element as DriverCalendarEvent.

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

Core AIA Components

The integration flow uses these components:

• ResourceCalendarEntryEBO

• SyncResourceCalendarEntryListEBM

• ResourceCalendarEntryEBS

The core EBO and EBM XSD files can be located by EBO within this parent folder: http://[HOST:PORT]/AIAComponents/EnterpriseObjectLibrary/Core/EBO/.

The core EBS WSDL files can be located by EBO within this parent folder: http://[HOST:PORT]/AIAComponents/EnterpriseBusinessServiceLibrary/Core/EBO/.

For detailed documentation of individual EBOs and EBMs, click the **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 Application Integration Architecture – Foundation Pack: Development Guide,* "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 Application Integration Architecture – Foundation Pack: Integration Developer's Guide*, "Extensibility for AIA Artifacts".

Integration Services

These are the services delivered with this integration:

- SyncTrainingCalendarListEbizReqABCSImpl

- SyncAbsenceCalendarListEbizReqABCSImpl

- ResourceCalendarEntryEBS

- SyncResourceCalendarEntryListLogisticsProvABCSImpl

SyncTrainingCalendarListEbizReqABCSImpl

The SyncTrainingCalendarListEbizReqABCSImpl is a BPEL process that has the ResourceCalendarEntryEBS as a partner service. This service receives the TrainingCalendarListEbizABM message as a request and does not return a response to the calling service.

This service performs these actions:

- Accepts the TrainingCalendarListEbizABM message from Oracle E-Business Suite. This message contains a cross-reference for Resource Calendar Entry ID.

- Transforms the TrainingCalendarListEbizABM into the SyncResourceCalendarEntryListEBM. While it is transforming from the ABM to the EBM, cross-references are looked up for RESOURCECALENDARENTRY_ID

- Sends the SyncResourceCalendarEntryListEBM message as an input to the SyncResourceCalendarEntryList operation in the ResourceCalendarEntryEBS service.

SyncAbsenceCalendarListEbizReqABCSImpl

The SyncAbsenceCalendarListEbizReqABCSImpl is a BPEL process that has the ResourceCalendarEntryEBS as a partner service. This service receives the ResourceCalendarListEbizABM message as a request and does not return a response to the calling service.

This service performs these actions:

- Accepts the ResourceCalendarListEbizABM message from Oracle E-Business Suite. This message contains a cross-reference for resource calendar entry ID.

- Transforms the ResourceCalendarListEbizABM into the SyncResourceCalendarEntryListEBM. While it is transforming from the application business message (ABM) to the enterprise business message (EBM), cross-references are looked up for RESOURCECALENDARENTRY_ID

- Sends the SyncResourceCalendarEntryListEBM message as an input to the SyncResourceCalendarEntryList operation in the ResourceCalendarEntryEBS service.

This DVM lookup is used by this service:

- CALENDAR_EVENT_TYPE - Domain value mapping for Absence Category/Calendar Event types.

ResourceCalendarEntryEBS

The ResourceCalendarEntryEBS is the Enterprise Business Service that exposes all the enterprise operations related to the resource calendar, such as create resource calendar, update resource calendar, synchronize resource calendar, and so on. This integration uses only the SyncResourceCalendarEntryList operation. This Enterprise Business Service routes the request to the appropriate provider like the SyncResourceCalendarEntryListLogisticsProvABCSImpl or the Composite Application Validation System (CAVS) based on the filter condition and operations. No transformations are done in this service. OTM determines whether this synchronize location message is for a create or an update action.

> **For more information** about this EBS, see Oracle Application Integration Architecture – Foundation Pack: Integration Developer's Guide, "Designing and Developing Enterprise Business Services" and Oracle Application Integration Architecture – Foundation Pack: Concepts and Technologies Guide, "Understanding Enterprise".

SyncResourceCalendarEntryListLogisticsProvABCSImpl

The SyncResourceCalendarEntryListLogisticsProvABCSImpl receives the SyncResourceCalendarEntryListEBM as an input from the ResourceCalendarEntryEBS, transforms it into the LogisticsABM, and invokes the Logistics web service. This service waits for the transmission report from the OTM. If the transaction is successful, the cross-reference is populated; otherwise, the AIAAsyncErrorHandling process is invoked with the error message. This SyncResourceCalendarEntryListLogisticsProvABCSImpl is a BPEL process, which receives the SyncResourceCalendarEntryListEBM, transforms the message into the LogisticsABM, invokes the Logistics web service with the SyncResourceCalendarEntryListEBM, and waits for the transmission report from the Logistics web service. If the transmission report specifies that the transaction is successful, it supplies the cross-reference values; otherwise, it invokes the AIAAsyncErrorHandlingBPEL process to generate the error messages.

This DVM lookup is used by this service:

- CALENDAR_EVENT_TYPE - Domain value mapping for Absence Category/Calendar Event types.

Chapter 5: Describing Process Integration for Work Invoice

This chapter provides an overview of the process integration for initial loading and incremental synchronization of accounts receivable and covers:

- Work Invoice integration details

- Data requirements

- Oracle E-Business Suite interfaces

- OTM interfaces

- Core AIA components

- Integration services

Process Integration for Work Invoice Overview

In this integration, Oracle E-Business Suite acts as a payable and accounting engine, and OTM creates the invoices. Therefore, work invoices are created in OTM for driver pay and sent over to Oracle E-Business Suite Incentive Compensation for payment.
This diagram illustrates the overall flow for the Work Invoice process integration:
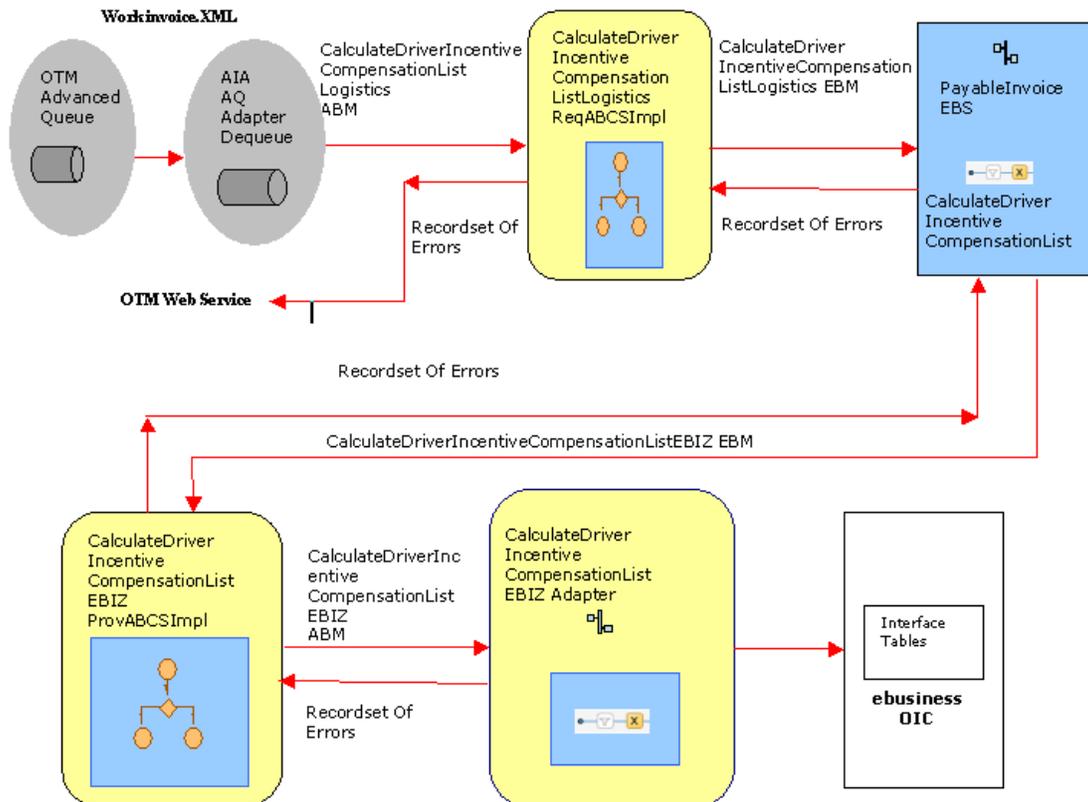
Work Invoice process integration flow

Prerequisites

These are the prerequisites for the process integration for payable invoices:

1. Drivers must be synchronized between Oracle E-Business Suite and OTM.

2. All the required Configuration properties should also be specified.

For more information about Configuration properties, see Chapter 6: Implementing the Oracle Transportation Driver Management Process Integration Pack.

Solution Assumptions and Constraints

These are the assumptions or constraints:

1. Each transaction has one exchange rate and one currency code.

2. Special services are created manually in both Oracle Transportation Management (OTM) and Oracle Incentive Compensation (OIC).

3. The PIP has been implemented in a way that the OTM sends the work invoices to OIC with these statuses:

Status Type	Status Value
WORK_INVOICE_SENT	WORK_INVOICE_SENT_NOT_SENT
CUSTOM_WORK_INVOICE_SENT_FAILED	CUSTOM_WORK_INVOICE_SENT_FAILED_NO

Oracle Incentive Compensation (OIC) reports errors related to the integration. For this, AIA layer changes the status of the work invoices as:

Status Type	Status Value
WORK_INVOICE_SENT	WORK_INVOICE_SENT_NOT_SENT
CUSTOM_WORK_INVOICE_SENT_FAILED	CUSTOM_WORK_INVOICE_SENT_FAILED_YES

The implication is that you need to rectify the reported error, change the status type CUSTOM_WORK_INVOICE_SENT_FAILED to CUSTOM_WORK_INVOICE_SENT_FAILED_NO, and then resubmit the work invoices. If the integration passes a batch of invoices, Oracle Incentive Compensation (OIC) returns the record set of all the errored work invoices and AIA updates the status of the errored records as mentioned in these tables.

The query to send the work invoice through process manager must carry the two statuses, which include WORK_INVOICE_SENT_NOT_SENT and the custom status of CUSTOM_WORK_INVOICE_SENT_FAILED_NO so that the query picks up both the corrected work invoices and the new work invoices.

4. This integration does not perform any validations and raise errors due to any business validation failure in OTM.

Updating Work Invoices

For updating work invoices, OTM creates a new work invoice GID and once the updated invoice is sent to OIC, OIC creates a new invoice with a reference to the original invoice number. Each time there is a change to the work invoice, the GID changes but the work invoice number remains the same. This work invoice number serves as a reference to the original invoice in OIC; therefore, anytime an update is sent from Oracle transportation management (OTM) to OIC, OIC is able to match the updated invoice with the original invoice and it updates the original invoice.

Work Invoice Integration Details

This integration flow uses these integration services:

- CalculateDriverIncentiveCompensationListLogisticsAQConsumer

- CalculateDriverIncentiveCompensationListLogisticsReqABCSImpl

- PayableInvoiceEBS

- PayableInvoiceResponseEBS

- CalculateDriverIncentiveCompensationListEBIZProvABCSImpl

- CalculateDriverIncentiveCompensationListEBIZAdapter

Work Invoice Transaction Flow

The work invoices integration flow creates the work invoice in Oracle E-Business OIC based on the work invoice sent from OTM.

This sequence diagram illustrates the transaction flow of the Work Invoice process.
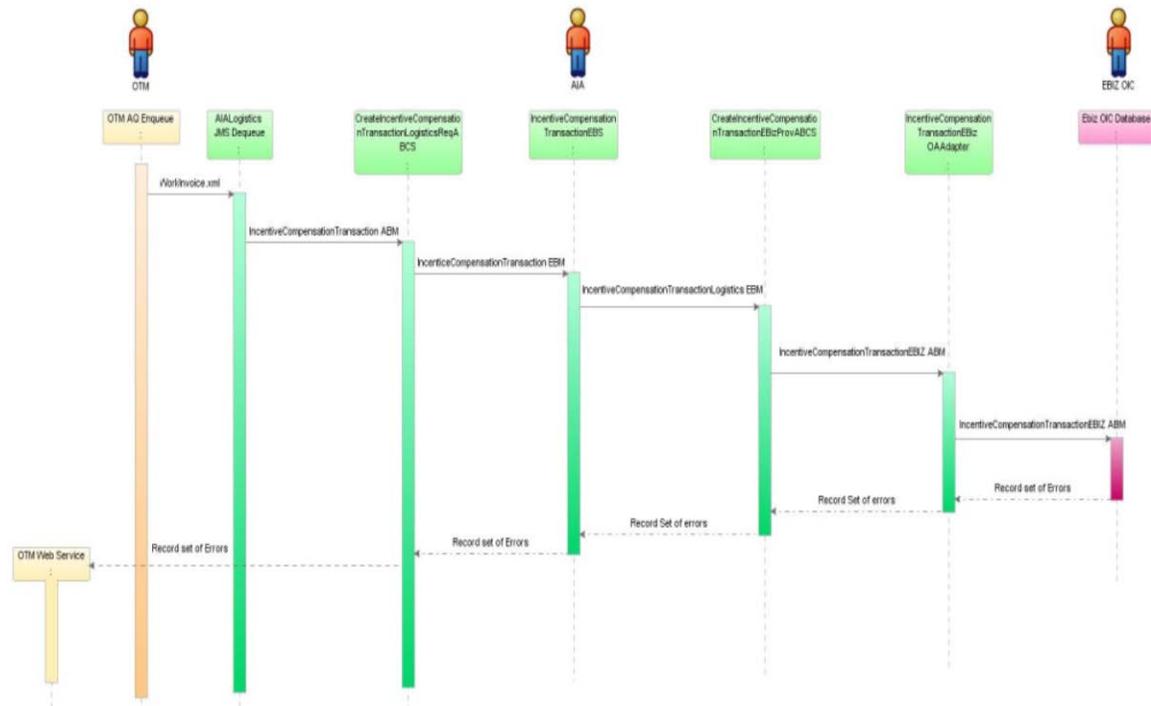
Transactional flow sequence diagram

When you initiate the process, these events occur:

1. OTM enqueues the messages and the
   CalculateDriverIncentiveCompensationListLogisticsAQConsumer service dequeues the
   messages and invokes the CalculateDriverIncentiveCompensationListLogisticsReqABCSImpl
   service.

2. The CalculateDriverIncentiveCompensationListLogisticsReqABCSImpl service transforms the
   OTM CalculateDriverIncentiveCompensationListLogisticsABM into the
   CalculateDriverIncentiveCompensationListEBM, populates the EBM header, updates the
   cross-reference data, and invokes the PayableInvoiceEBS with the
   CalculateDriverIncentiveCompensationList operation.

3. The PayableInvoiceEBS service with the CalculateDriverIncentiveCompensationList
   operation routes the messages based on the CAVS flag to either the
   CreatePayableInvoiceListEbizProvABCSImpl service or the CAVS simulator.

4. The status of the errored work invoices returned by the OIC (as mentioned in solution
   assumptions and constraints) is updated in OTM through PayableInvoiceResponseEBS.
   CalculateDriverIncentiveCompensationListLogisticsReqABCSImpl, OTM web service.

5. The CalculateDriverIncentiveCompensationListEBIZProvABCSImpl transforms the
   CalculateDriverIncentiveCompensationListEBM into the Oracle E-Business Suite
   CalculateDriverIncentiveCompensationListEBIZABM and invokes the
   CalculateDriverIncentiveCompensationListEBIZAdapter.

6. The CalculateDriverIncentiveCompensationListEBIZAdapter service receives the
   CalculateDriverIncentiveCompensationListEBIZABM and makes insert calls to the Oracle E-
   Business Suite OIC interface table.

Data Requirements

The driver included in the work invoice needs to be synced into OTM.

Oracle E-Business Suite Interfaces

For the work invoice integration flow, CalculateDriverIncentiveCompensationListEBIZAdapter is the Oracle E-Business Suite interface.

For more information about EBS web services, see Oracle E-Business Suite references: *Oracle E-Business Suite Electronic Technical Reference Manual (eTRM)* located on My Oracle Support under the Oracle E-Business Suite Information Center,
Oracle Integration Repository located at http://irep.oracle.com, and Oracle Applications Release 11.5.10+ Online Documentation Library, located on the Oracle Technology Network (http://www.oracle.com/technology/documentation/applications.html)

CalculateDriverIncentiveCompensationListEBIZAdapter

The CalculateDriverIncentiveCompensationListEBIZAdapter triggers the OIC API. When the CalculateDriverIncentiveCompensationListEBIZABM is received, the API inserts the payload into the Oracle E-Business Suite OIC interface table - ***CN_COLLECTION_AIA.***

OTM Interfaces

For the Work Invoice integration flow, CalculateDriverIncentiveCompensationListLogisticsAQConsumer is the OTM interface.

CalculateDriverIncentiveCompensationListLogisticsAQConsumer

The CalculateDriverIncentiveCompensationListLogisticsAQConsumer service is used to listen/dequeue the OTM advanced queue setup in OTM to pass the generated work invoice to the AIA layer.

Core AIA Components

The integration flow uses these components:

- PayableInvoiceEBO

- CalculateDriverIncentiveCompensationListEBM

- PayableInvoiceEBS

- PayableInvoiceResponseEBS

The core EBO and EBM XSD files can be located by EBO within this parent folder:
http://[HOST:PORT]/AIAComponents/EnterpriseObjectLibrary/Core/EBO/.

The core EBS WSDL files can be located by EBO within this parent folder:
http://[HOST:PORT]/AIAComponents/EnterpriseBusinessServiceLibrary/Core/EBO/.

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

> **For more information** about using the Oracle Enterprise Repository and configuring it to provide
> the AIA Reference Doc link, see *Oracle Application Integration Architecture – Foundation Pack:
> Development Guide*, "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 Application Integration Architecture – Foundation Pack:
> Integration Developer's Guide*, "Extensibility for AIA Artifacts."

Integration Services

These are the services delivered with this integration:

- CalculateDriverIncentiveCompensationListLogisticsReqABCSImpl

- CalculateDriverIncentiveCompensationListEBIZProvABCSImpl

- PayableInvoiceEBS

- PayableInvoiceResponseEBS l

CalculateDriverIncentiveCompensationListLogisticsReqABCSImpl

The CalculateDriverIncentiveCompensationListLogisticsReqABCSImpl is a BPEL process and a
single operations service that has the PayableInvoiceEBS as a partner service. This service
receives the CalculateDriverIncentiveCompensationListLogisticsABM message as a request and
does not return a response to the calling service.

This service performs these actions:

- Accepts the CalculateDriverIncentiveCompensationListLogisticsABM message from OTM.

- Transforms the CalculateDriverIncentiveCompensationListLogisticsABM into the
  CalculateDriverIncentiveCompensationListEBM. While it is transforming from the ABM to the
  EBM, cross-references are populated for PAYABLEINVOICE_PAYABLEINVOICEID.

- Sends the CalculateDriverIncentiveCompensationListEBM message as an input to the

CalculateDriverIncentiveCompensationList operation in the PayableInvoiceEBS service.

These DVM lookups are used by this service:

- PAYABLEINVOICE_REVENUE_CLASS – Domain value mapping for Revenue classes.

- UNIT_OF_MEASURE – Domain value mapping for UOM code.

- CURRENCY_CODE – Domain value mapping for currency code.

CalculateDriverIncentiveCompensationListEBIZProvABCSImpl

The CreatePayableInvoiceListEbizProvABCSImpl is a BPEL process, which receives CalculateDriverIncentiveCompensationListEBM as a request from PayableInvoiceEBS, is transformed into CalculateDriverIncentiveCompensationListEBIZABM and invokes the CalculateDriverIncentiveCompensationListEbizOAdapter service. This service inserts the invoice record and waits for the transmission report. If the transaction is successful, the CalculateDriverIncentiveCompensationList is populated; otherwise, the AIAACreateErrorHandlingBPELProcess is invoked with the error message.

These DVM lookups are used by this service:

- PAYABLEINVOICE_REVENUE_CLASS – Domain value mapping for Revenue classes.

- UNIT_OF_MEASURE – Domain value mapping for UOM code.

- CURRENCY_CODE – Domain value mapping for currency code.

- PAYABLEINVOICE_PAYABLE_STATUS – Domain value mapping for Payable Status.

PayableInvoiceEBS

The PayableInvoiceEBS is an EBS used to route all the Payable Invoice-related actions, such as calculating the driver compensation to the CalculateDriverIncentiveCompensationListEBizProvABCSImpl or CAVS based on the filter condition and operation.

For more information about this EBS, see *Oracle Application Integration Architecture – Foundation Pack: Integration Developer's Guide*, "Designing and Developing Enterprise Business Services" and *Oracle Application Integration Architecture – Foundation Pack: Concepts and Technologies Guide*, "Understanding Enterprise Business Services."

PayableInvoiceResponseEBS

The PayableInvoiceResponseEBS routes the response received from OIC to the CalculateDriverIncentiveCompensationListLogisticsReqABCSImpl or CAVS based on the filter condition and operation.

Chapter 6: Implementing the Oracle Transportation Driver Management Process Integration Pack

This chapter covers:

- Setting up the participating applications

- Setting up cross-references for Oracle E-Business Suite entities

- Identifying cross-references

- Describing domain value maps

- Handling errors

- EBO implementation maps (EIMs)

- Settin up configuration properties

Oracle E-Business Suite HRMS, OIC, and OTM must be set up for the driver process integration pack to work properly. These sections describe the setup in detail.

Setting Up the Participating Applications

This section covers setting up:

- Oracle E-Business Suite

- Oracle Transportation Management

Setting Up Oracle E-Business Suite System Profiles

For the Oracle Transportation Driver Management PIP, set these profile options:

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:

    For Oracle E-Business Suite 11.5.10.2 and 12.1.1:

    - HZ: Generate Party Number to Yes

- HZ: Generate Party Site Number to Yes

Obtaining Oracle E-Business Suite Operating Unit IDs

Users need to determine what organizations they want to support and then get the IDs for those organizations.

To get the Operating Unit details:

4. Log in to Oracle E-Business Suite database.

5. Identify the operating units that need to be synchronized or maintained in Oracle E-Business Suite.

   - If you want to pick other operating units, use this query:

   ```
   select organization_ID, name from hr_operating_units
   ```

Obtaining Oracle Transportation Management Domains

Implementers need to determine what domains in OTM they have to support.

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.

5. Click Search. This screen appears with domains setup.
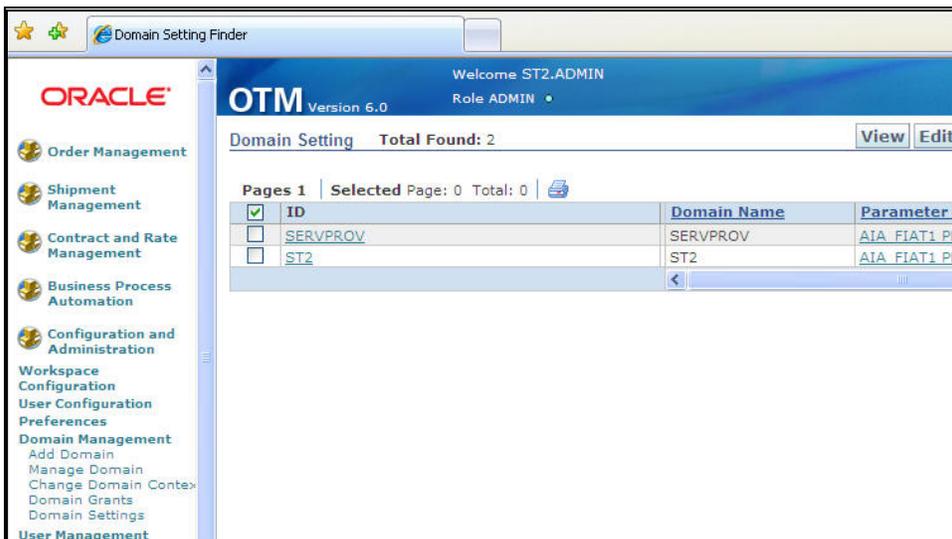
Search result

Setting Up Oracle Transportation Management

This section covers:

- Creating Calendar Event Type in OTM

- Creating Driver Status Type in OTM

- Creating Remark Qualifier GID in OTM

- Creating Involved Party Qualifier ID in OTM

- Creating Special Service GID in OTM

- Creating Work Invoice Custom Status Type in OTM

- Setting Up Automation Agents in OTM

Creating a Calendar Event Type in OTM

For the Oracle Transportation Driver Management PIP, set these profile options:

1. Log in to OTM.

2. Navigate to Fleet and Asset Management in the menu.

3. Click Power Data.

4. Click General in the Power Data screen.

5. Click Calendar Event Type in the list.

    The Calendar Event Type page appears.

6. Click the New button to create a new Calendar Event Type.

7. Enter the details for Calendar Event Type ID, Description, Is Working, and Domain Name fields.

8. Click the Finished button.

    The Results screen appears displaying the result of creation of the Calendar Event Type.

9. To view the created record, click the View button in the Results screen.

10. To find all the Calendar Event Types in the OTM Environment, click Search in the Calendar Event Type Finder screen.

Note: Calendar Event Type ID TRAINING should be available in OTM for Driver Training Calendar Event Integration. OTM_01 values given in CALENDAR_EVENT_TYPE DVM should be available in OTM as Calendar Event Type IDs for Driver Absence Calendar Event Integration.

Creating a Driver Status Type in OTM

For the Oracle Transportation Driver Management PIP, set these profile options:

1. Log in to OTM.

2. Navigate through Configuration and Administration, Power Data, General, Status Types.

3. Click New.

4. Enter Status Type ID, Sequence, and Object Type.

5. Enter the domain that the user is logged in to.

6. Enter the Status values in the grid.

Note: Ensure that the Initial Value is checked for all the values.

7. Click the Finished button to save the records.

Creating a Remark Qualifier GID in OTM

To create a remark qualifier:

1. Log in to OTM.

2. Navigate through Configuration and Administration, Power Data, Qualifiers, Remark Qualifiers.

3. Click the New button to create a new Remark Qualifier and enter the details in the required fields.

4. Click Finished to save the record.

Creating an Involved Party Qualifier ID in OTM

To create an involved party qualifier ID:

5. Log in to OTM.

6. Navigate through Business Process Automation, Power Data, Qualifiers, Involved Party Qualifiers.

7. Click New to create a new Involved Party Qualifier and enter the details in the required fields.

8. Click the Finished button to save the record.

Creating a Special Service GID in OTM

**To create special service GID in OTM:**

9. Log in to OTM.

10. Navigate through Shipment Management , Power Data, Special Service Management , Special Service.

11. Click New.

12. Enter the required special service ID and the details in the required fields.

13. Click the Finished button to save the record.

Creating a Work Invoice Custom Status Type in OTM

To create a work invoice custom status type:

14. Log in to OTM.

15. Navigate through Configuration and Administration, Power Data, General, Status Types.

16. Click the New button.

17. Enter the following values:

- Status Type ID = CUSTOM_WORK_INVOICE_SENT_FAILED
- Sequence = 1
- Object Type = WORK INVOICE

18. Enter the domain that the user is logged in to.

19. Enter the Status values in the grid as shown in the following table:

Sequence	Status Value ID	Description	Initial Value
1	CUSTOM_WORK_INVOICE_SENT_FAILED_NO	CUSTOM_WORK_INVOICE_SENT_FAILED_NO	Checked
2	CUSTOM_WORK_INVOICE_SENT_FAILED_YES	CUSTOM_WORK_INVOICE_SENT_FAILED_YES	Unchecked
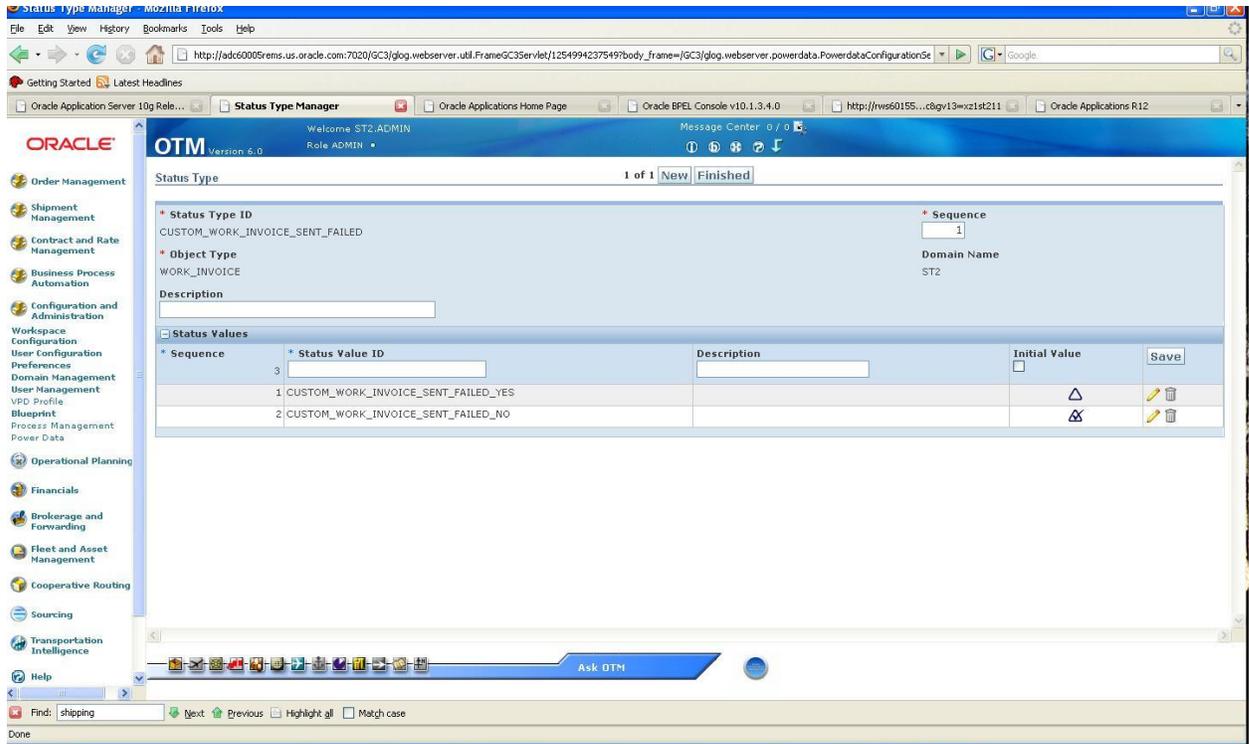
20. Click **Finished** to save.

Setting Up Automation Agents in OTM

To set up automation agents in OTM:

21. Status Change

22. Event: WORK INVOICE - SEND INTERFACE

23. Navigation in OTM: Business Process Automation, Agents and Milestones, Automation Agent, New
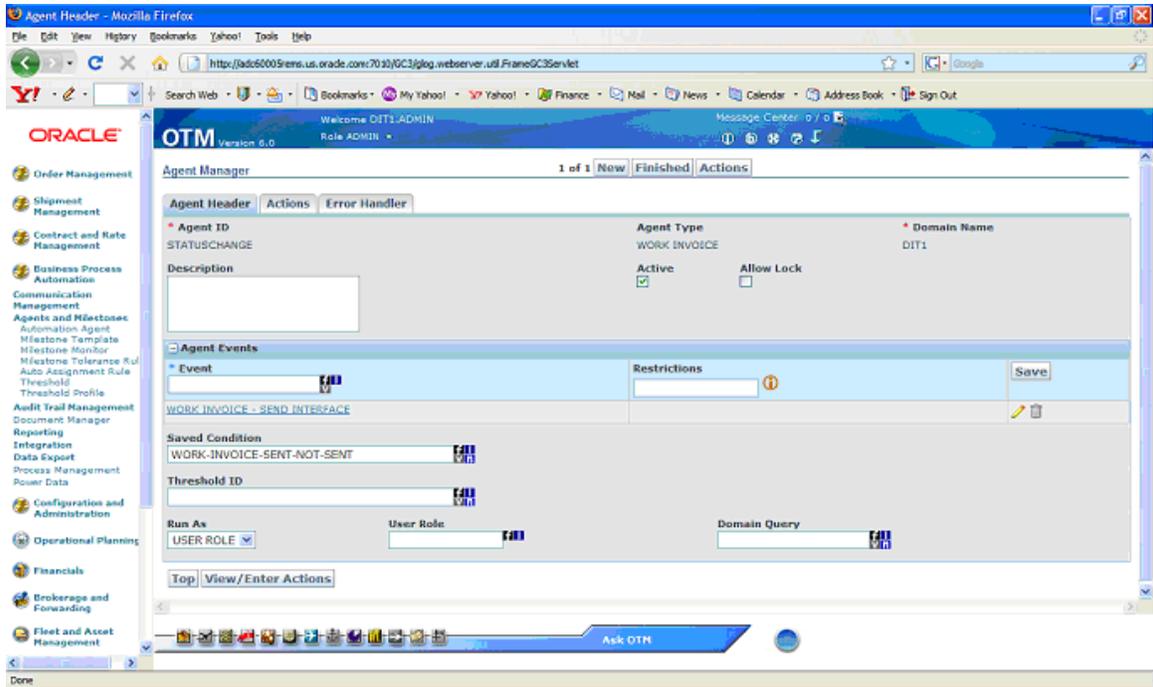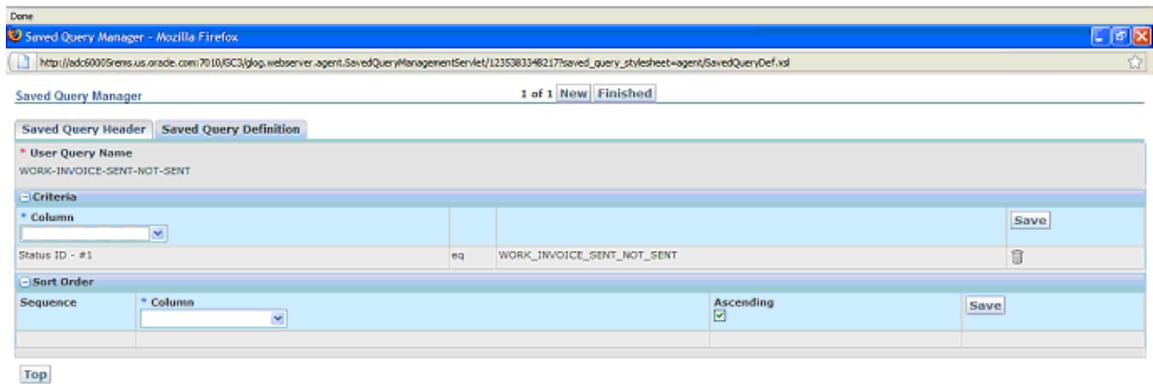
Saved queries for Integration:

Saved Query ID	Criteria	Check One SQL
WORK-INVOICE-SENT-NOT-SENT	Status ID - #1 eq WORK_INVOICE_ SENT_NOT_SENT	Select wi.work_invoice_gid from WORK_INVOICE wi where (wi.work_invoice_gid in (select wis1.work_invoice_gid from WORK_INVOICE_STATUS wis1, STATUS_VALUE sv1 where (wis1.status_value_gid=sv1.status_value_gid) and (sv1.status_value_xid='WORK_INVOICE_SENT_NOT_SENT'))) and

Saved Query ID	Criteria	Check One SQL
		(wi.work_invoice_gid=?)

24. STATUS CHANGE AGENT:

25. Event: WORK INVOICE - SEND INTEGRATION (AGENT)

26. Navigation in OTM: Business Process Automation, Agents and Milestones, Automation Agent, New
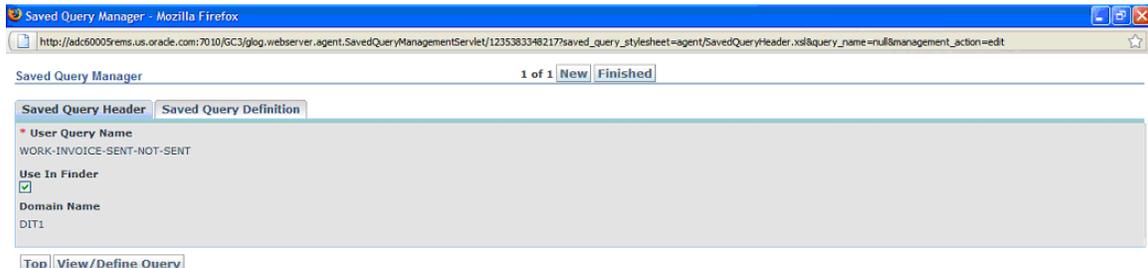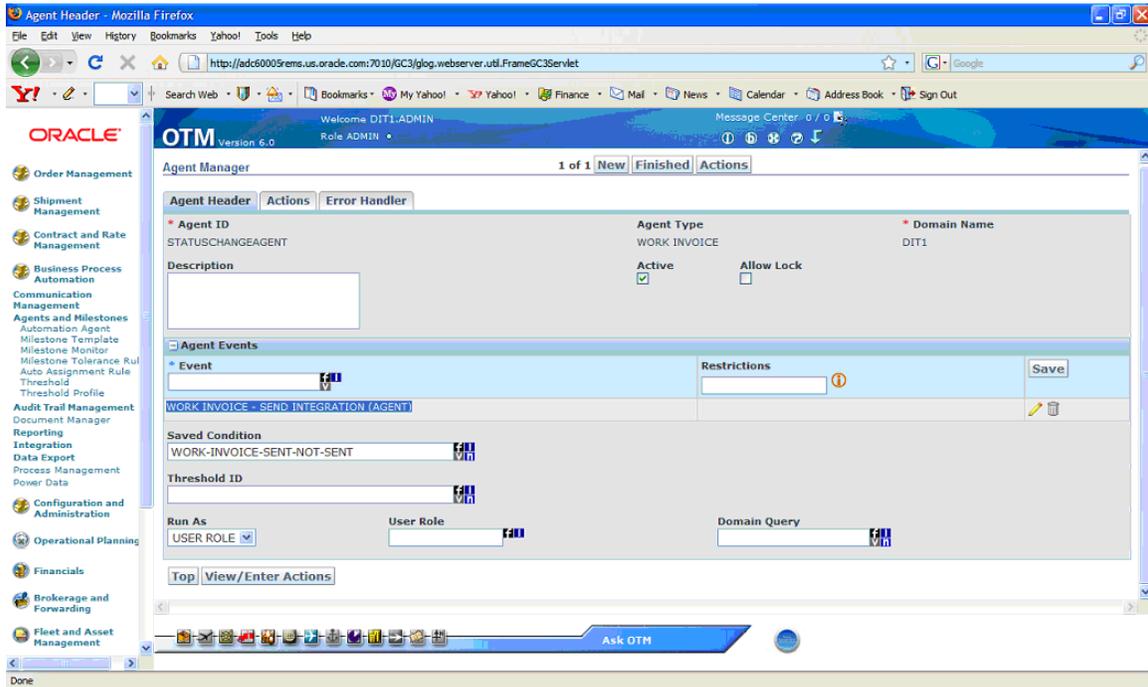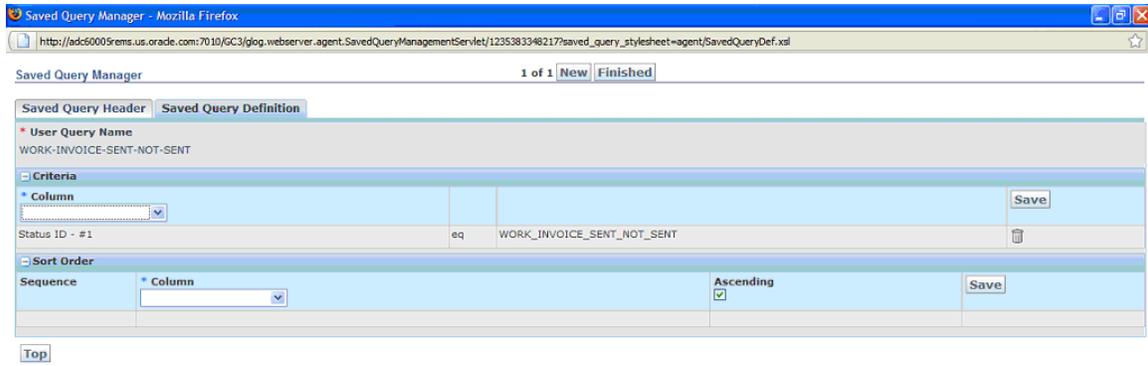
Saved queries for agent (for Saved condition)

Saved Query ID	Criteria	Check One SQL
WORK-INVOICE-SENT-NOT-SENT	Status ID - #1 eq WORK_INVOICE_ SENT_NOT_SENT	Select wi.work_invoice_gid from WORK_INVOICE wi where (wi.work_invoice_gid in (select wis1.work_invoice_gid from WORK_INVOICE_STATUS wis1, STATUS_VALUE sv1 where (wis1.status_value_gid=sv1.status_value_gid) and (sv1.status_value_xid='WORK_INVOICE_SENT_NOT_SENT'))) and (wi.work_invoice_gid=?)

27. STATUS CHANGE PROCESS MANAGER

28. Event: WORK INVOICE – MODIFIED

29. Navigation in OTM: Business Process Automation, Agents and Milestones, Automation Agent, New
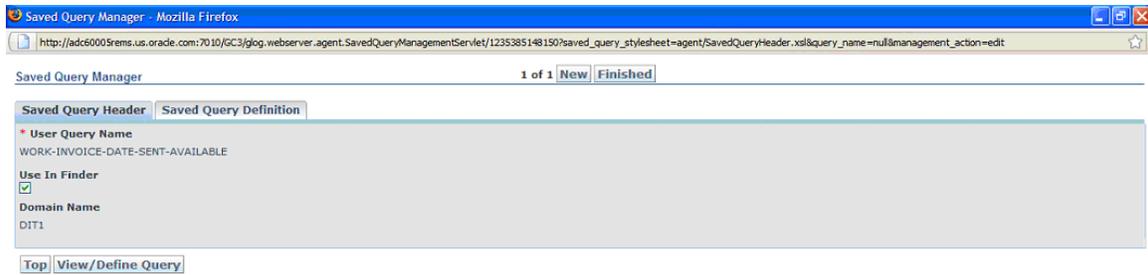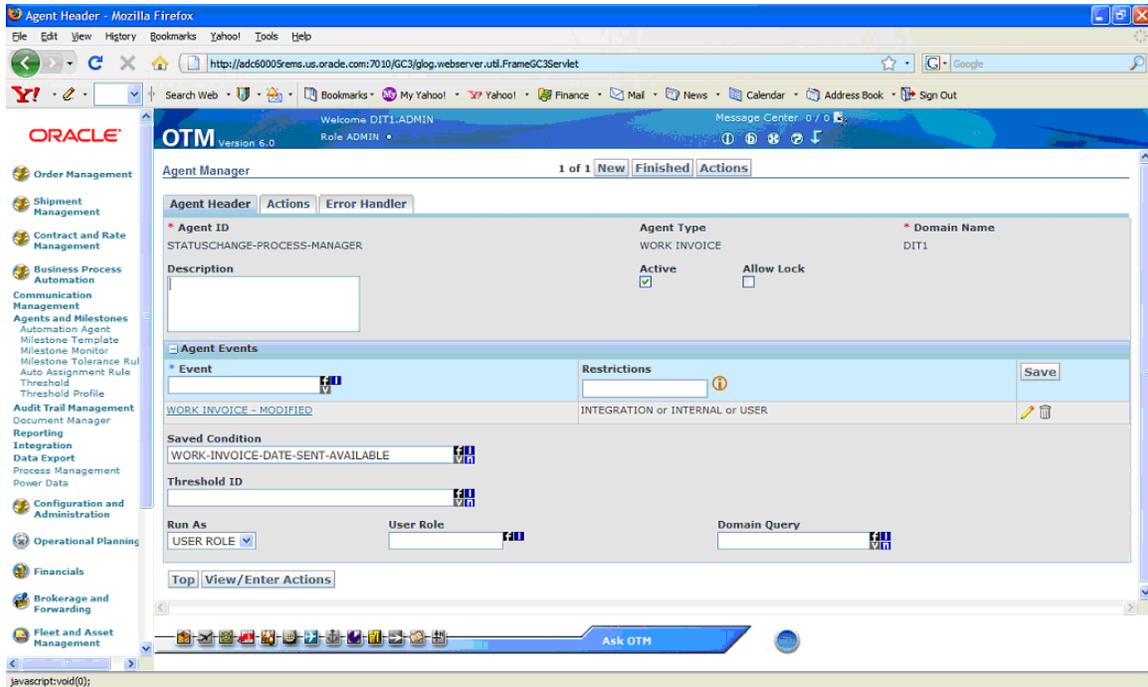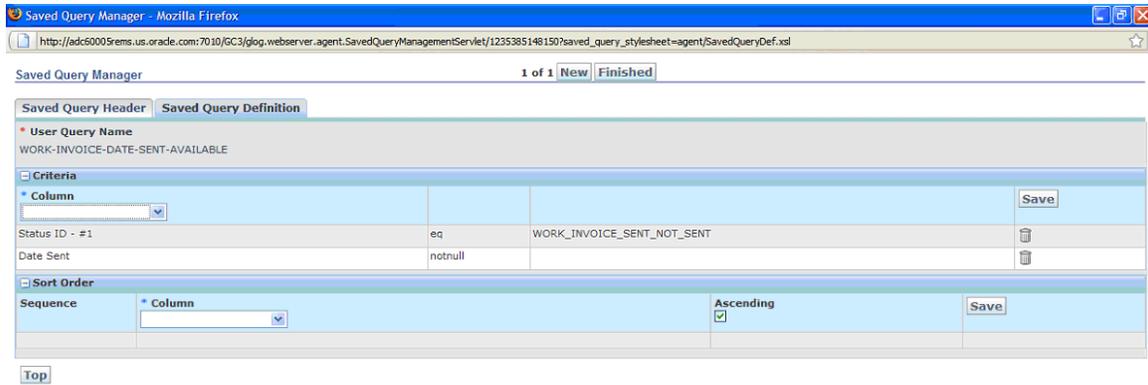
Saved Queries for STATUSCHANGE-PROCESS-MANAGER

Saved Query ID	Criteria	Check One SQL
WORK-INVOICE-DATE-SENT-AVAILABLE	Status ID - #1 eq WORK_INVOICE_ SENT_NOT_SENT Date Sent notnull	Select wi.work_invoice_gid from WORK_INVOICE wi where (wi.work_invoice_gid in (select wis1.work_invoice_gid from STATUS_VALUE sv1, WORK_INVOICE_STATUS wis1 where (sv1.status_value_xid='WORK_INVOICE_SENT_NOT_SENT') and (wis1.status_value_gid=sv1.status_value_gid))) and (wi.work_invoice_gid=?) and (wi.date_sent is not null)

Setting Up Cross-References for Oracle E-Business Suite Entities

This section covers how to:

- Identify Oracle E-Business Suite Entities

- Populate cross-references

- Enable Oracle E-Business Suite Business events

- Validate cross-references

Identifying Oracle E-Business Suite Entities

To get the operating unit details:

30. Log in to Oracle E-Business Suite database (Apps/Apps).

31. Identify the operating units that need to be synchronized or maintained in Oracle E-Business Suite.

    - If you want to pick other operating units, use this query:

      Select organization_ID, name from hr_operating_units

Populating Cross-References

To populate cross-references:

32. Create Organization.xml using these samples. Update the XML files with the IDs.

    Oracle IDs for this remain the same until different organizations are selected, created, or both.

    Sample **Organization.xml**:

```
<xref xmlns="http://xmlns.oracle.com/xref">
<table name="ORGANIZATION_ID">
   <columns>
         <column name="EBIZ_01"/>
         <column name="OTM_01"/>
   </columns>
   <rows>
         <row>
               <cell colName="EBIZ_01">204</cell>
               <cell colName="OTM_01">ST2</cell>
         </row>
   </rows>
</table>
</xref>
```

For more information about creating the cross references, see *Oracle Enterprise Service Bus Developer's Guide 10g (10.1.3.4.0),* Creating Cross References.

33. Run the xrefimport tool to import the cross-references.

34. Copy the files to a temp directory on the SOA server.

35. Telnet to the SOA server and change dir to the xrefimport tool home:

    -bash-3.00$ cd $SOA_HOME/integration/esb/bin

36. Set these env variables:

    -bash-3.00$ export OC4J_USERNAME=oc4jadmin

    -bash-3.00$ export OC4J_PASSWORD=welcome1

    -bash-3.00$ export DB_USER=aia

-bash-3.00$ export DB_PASSWORD=aia

-bash-3.00$ export
DB_URL="jdbc:oracle:thin:@adc60119fems.us.oracle.com:1549:o2c2sysa"

37. Run the import for ORGANIZATION cross-reference using this command:

bash-3.00$. xrefimport.sh -file ~/orginvsetup/Organization.xml -generate COMMON

Enabling Oracle E-Business Suite Business Events

Enable the Business events in Oracle E-Business Suite and change the subscription of the same—the phase value (1–99) and Rule Data (to Message).

Events for Training Calendar:

Create Delegate Booking: oracle.apps.ota.api.delegate_booking.create_delegate_booking

Update Delegate Booking: oracle.apps.ota.api.delegate_booking.update_delegate_booking

Delete Delegate Booking: oracle.apps.ota.api.delegate_booking.delete_delegate_booking

Update Class Schedule: oracle.apps.ota.api.event_api.update_class_schedule

Update Location: oracle.apps.ota.api.event_api.update_location

Update Training Center
and Location: oracle.apps.ota.api.event_api.update_trng_cntr_and_location

Events for Absence Calendar:

Create Absence   oracle.apps.per.api.person_absence.create_person_absence

Update Absence   oracle.apps.per.api.person_absence.update_person_absence

Delete Absence   oracle.apps.per.api.person_absence.delete_person_absence

Events for Location:

Create Location   oracle.apps.per.api.location.create_location

Update Location   oracle.apps.per.api.location.update_location

Events for Driver Profile:

oracle.apps.per.person.profile

oracle.apps.per.person.groupevent

Validating Cross-References

To validate cross-references:

38. Log in to the AIA XREF database.

39. Query the Table XREF_DATA to confirm that every organization used in the XML files has three records.

40. Use this query:

```
select value||'::'||Xref_column_name from xref_Data where
row_number in (select row_number from xref_data where
xref_table_name = 'ORGANIZATION_ID'
and value in ('204'))
Replace the value for the organizations you selected. (The number of
operating units depends on your setup.)
```

Identifying Cross-References

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.

For more information about cross-references, see *Oracle Application Integration Architecture – Foundation Pack - Integration Developer's Guide* and the *Oracle Cross Reference User Guide*.

These are the cross-references for Driver Profile process flow:

Name	Columns	Description
WORKER_ID	EBIZ_01, COMMON, OTM_01	Common is a GUID generated by BPEL. cross-reference value for Oracle E-Business Suite and OTM is concatenation of Employee Number and Person ID.
WORKER_CONTACTID	EBIZ_01, COMMON, OTM_01	Common value is concatenation of contact ID, driver ID separated by ::
WORKER_DELIVERYMETHODID	EBIZ_01, COMMON, OTM_01	Common value is concatenation of contact ID, driver ID separated by ::
WORKER_PHONEID	EBIZ_01, COMMON, OTM_01	Common value is concatenation of contact ID, driver ID separated by ::
WORKER_QUALIFICATIONID	EBIZ_01, COMMON, OTM_01	Common value is concatenation of contact ID, driver ID separated by ::
WORKER_BOOKINGID	EBIZ_01, COMMON, OTM_01	Common value is concatenation of contact ID, driver ID separated by ::
WORKER_CERTIFICATIONENROL LID	EBIZ_01, COMMON, OTM_01	Common value is concatenation of contact ID, driver ID separated by ::
WORKER_ADDRESS_ID	EBIZ_01, COMMON, OTM_01	Common is a GUID generated by BPEL. cross-reference value for Oracle E-Business Suite and OTM is concatenation of Source and Address ID.
WORKER_ASSIGNMENTID	EBIZ_01, COMMON, OTM_01	Common is a GUID generated by BPEL. cross-reference value for Oracle E-Business Suite and OTM

Name	Columns	Description
		is concatenation of Source and ASSIGNMENT_ID.

These are the cross-references for Location process flow:

Name	Columns	Description
LOCATION_ID	EBIZ_01, COMMON, OTM_01	Common is a GUID generated by BPEL. Location Code from Oracle E-Business Suite is post fixed with this GUID sent to OTM as LOCATION_XID.

These are the cross-references for Training and Absence Calendar process flow:

Name	Columns	Description
RESOURCECALENDARENRTY_ID	TRAINING_EBIZ_01, ABSENCE_EBIZ_01 COMMON, OTM_01	Common is a GUID generated by BPEL and Sequence number generated in AIA layer, is sent to OTM.
WORKER_ID	EBIZ_01, COMMON, OTM_01	The WORKER_ID cross-reference is looked up to get the PERSON_GID from Oracle E-Business Suite PERSON_ID
LOCATION_ID	EBIZ_01, COMMON, OTM_01	The Location cross-reference is looked up to get the LOCATION_GID from Oracle E-Business Suite LOCATION_ID

These are the cross-references for work invoice process flow:

Name	Columns	Description
`	OTM_01, COMMON, EBIZ_01	Common is a GUID generated by BPEL.
ORGANIZATION_ID	OTM_01, COMMON, EBIZ_01,SIEBEL_01	

Describing Domain Value Maps

Domain value maps (DVMs) are a standard feature of the Oracle SOA Suite and enable you to equate lookup codes and other static values across applications, for example, FOOT and FT or US and USA.

These are the domain value mappings (DVMs) for the driver profiles process flow:

Name	Columns	Description
ADDRESS_COUNTRYID	EBIZ_01, COMMON, OTM_01	Mapping for country codes

Name	Columns	Description
STATE	EBIZ_01, COMMON, OTM_01	Mapping for state codes
QUALIFICATIONTYPE_ID	EBIZ_01, COMMON, OTM_01	Mapping for qualification type ID/Code
COMMUNICATION_METHOD	EBIZ_01, COMMON, OTM_01	Mapping for communication methods
PHONE_TYPE	EBIZ_01, COMMON, OTM_01	Mapping for phone type
WORKER_PERSON_TYPE_ID	EBIZ_01, COMMON, OTM_01	Mapping for person type ID
BLOOD_TYPE	EBIZ_01, COMMON, OTM_01	Mapping for blood type
WORKER_ASSIGNMENT_STATUS	EBIZ_01, COMMON, OTM_01	Mapping for assignment status
BUSINESSGROUP_DOMAIN	EBIZ_01, COMMON, OTM_01	
CONTACT_GENDERCODE	EBIZ_01, COMMON, OTM_01	Mapping for gender
WORKER_ADDRESSTYPE	EBIZ_01, COMMON, OTM_01	Mapping for address type
WORKER_CERTIFICATIONID	EBIZ_01, COMMON, OTM_01	Mapping for certification ID
WORKER_PERIOD_STATUS_CODE	EBIZ_01, COMMON, OTM_01	Mapping for status

Name	Columns	Description
WORKER_COMPETENCE_ID	EBIZ_01, COMMON, OTM_01	Mapping for competence ID
APPS_USER	USER_NAME, LANG_CODE	Domain value mapping for language code and user

These are the domain value mappings (DVMs) for the Location process flow:

Name	Columns	Description
ADDRESS_COUNTRYID	EBIZ_01, COMMON, OTM_01	Domain value mapping for domain names
STATE	EBIZ_01, COMMON, OTM_01	Domain value mapping for domain names
BUSINESSGOURP_DOMAIN	EBIZ_01, COMMON, OTM_01	Domain value mapping for domain names
TIMEZONE	EBIZ_01, COMMON, OTM_01	Domain value mapping for domain names
APPS_USER	USER_NAME, LANG_CODE	Domain value mapping for language code and user

These are the domain value mappings (DVMs) for the Training and Absence Calendar process flow:

Name	Columns	Description
CALENDAR_EVENT_TYPE	EBIZ_01, COMMON, OTM_01	Domain value mapping for Absence Category/Calendar Event types
BUSINESSGOURP_DOMAIN	EBIZ_01, COMMON, OTM_01	Domain value mapping for domain names
APPS_USER	USER_NAME, LANG_CODE	Domain value mapping for language code and user

These are the domain value mappings (DVMs) for the Work Invoice process flow:

Name	Columns	Description
PAYABLEINVOICE_Revenue_Class	EBIZ_01, COMMON, OTM_01	Domain value mappings for Revenue class
UNIT_OF_MEASURE	EBIZ_01, COMMON, OTM_01	Domain value mappings for UOM code

Name	Columns	Description
PAYABLEINVOICE_PAYABLE_ STATUS	EBIZ_01, COMMON, OTM_01	Domain value mappings for Payable status
Currency_Code	EBIZ_01, COMMON, OTM_01	Domain value mappings for Currency code

Handling Errors

No business errors are captured for Oracle Transportation Driver Management PIP.

EBO Implementation Maps (EIMs)

For more information about how services are mapped, see the My Oracle Support document: EBO Implementation Maps (EIMs) 795541.1.

Setting Configuration Properties

The table lists the properties that need to be set in the configuration file.

Set these properties in the AIAConfigurationProperties.xml file. The file is located in <AIA_HOME>/aia_instances/$INSTANCE_NAME/AIAMetaData/config.

For more information about requirements for working with AIAConfigurationProperties.xml, see *Oracle Application Integration Architecture – Foundation Pack: Development Guide*, "Building AIA Integration Flows," How to Set Up AIA Workstation.

Settings for SyncWorkerListEbizReqABCSImpl service

Property Name	Value/Default Value	Description
Default.SystemID	EBIZ_01	Based on the SenderHostName obtained from ABM, sender SystemID is derived. If it is empty, then AIA tries to read it from the config file using this property.
Routing.WorkerEBS.SyncWorkerList .RouteToCAVS	True/False	EnvironmentCode in the Header population is derived based on this value. If this property value is set to true, then the EnviromentCode value is set to CAVS. If this property value is set to false, we need to read the

Property Name	Value/Default Value	Description
		Routing.MessageProcessingInstruction.Environmen tCode property from the config file and set that value for EnvironmentCode. If Routing.MessageProcessingInstruction.Environmen tCode 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.
Routing.WorkerEBS.SyncWorkerList .MessageProcessingInstruction.Envi ronmentCode	PRODUCTION	This property is used to set the environment code to PRODUCTION.
Routing.WorkerEBS.SyncWorkerList .CAVS.EndpointURI	http://adc60008rems.us.oracle.com :7873/AIAValidationSystemServlet/ asyncrequestrecipient	This property is used for setting the DefinitionID at the time of populating the EBMHeader. This holds the URI of CAVS simulator where the EBS should send the request.
ABCSExtension.PreProcessABM	True/False	This property is used as an extension point before ABM is transformed to EBM. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PreProcessEBM	True/False	This property is used as an extension point after ABM to EBM transformation and before Invoking the EBS. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PostProcessABM	True/false	Setting this property to true enables us to override the existing mappings
ABCSExtension.PostProcessEBM	True/false	This property along with the UserName is used for setting the AppsContext in SetAppsContext.xsl. This xsl is used for setting the Oracle E-Business Suite User and Responsibility before invoking PL/SQL API
Transformation.EnableExtensions	True/false	This property should be set to true when customers want to customize the attribute mapping done in xsl.
EBIZ_01.PersonTypeEMP	EMP	This property should be set to true when customers want to customize the attribute mapping done in xsl.
EBIZ_01.PersonTypeCWK	OTHER	This property should be set to true when customers want to customize the attribute mapping done in xsl.

Settings for SyncWorkerListLogisticsProvABCSImpl service

Property Name	Value/Default Value	Description
Default.SystemID	OTM_01	Target SystemID is obtained from EBMHeader, but if it is empty then we try to read it from the config file using this property.

Property Name	Value/Default Value	Description
Routing.LogisticsWebService.RouteToCAVS	True/False	Set this property to true to route the message to CAVS. Otherwise, the message is routed to the target application through the Adapter.
Routing.LogisticsWebService.CAVS.Endpoint URI	http://adc60008rems.us.oracle.com:7873/AIAValidationSystemServlet/syncresponsesimulator	If the RouteToCAVS property is set to true, the URI of the simulator is dynamically derived by the Java activity from this property.
Routing.WorkerResponseEBS.SyncWorkerList.RouteToCAVS	True/false	EnvironmentCode in the Header population for WorkerResponseEBS is derived based on this value.
Routing.WorkerResponseEBS.SyncWorkerList.CAVS.EndpointURI	http://adc60008rems.us.oracle.com:7873/AIAValidationSystemServlet/asyncrequestrecipient	If this property value is set to true, then the EnviromentCode value is set to CAVS If this property value is set to false, we need to read the Routing.WorkerResponseEBS.SyncWorkerList.MessageProcessingInstruction.EnvironmentCode property from the config file and set that value for EnvironmentCode.
Routing.WorkerResponseEBS.SyncWorkerList.MessageProcessingInstruction.EnvironmentCode	PRODUCTION	
Routing.LogisticsWebService.OTM_01.EndpointURI	http://adc60005rems.us.oracle.com:7001/GC3Services/IntXmlService/webservice	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.
ABCSExtension.PreProcessABM	True/False	This property is used as an extension point before ABM is transformed to EBM. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.ABCSExtension.PreInvokeABS	True/False	This property is used as an extension point after EBM is transformed to ABM and before invoking the target application. It determines whether invocation of service at the extension point is to be made depending on the property value.
ABCSExtension.PreProcessABM	True/False	This property is used as an extension point after EBM to ABM transformation and before Invoking the target. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PostProcessABM	True/false	Setting this property to true enables us to override the existing mappings.
ABCSExtension.PostProcessEBM	True/false	This property decides whether AutoInvoice Master Program should be called immediately after Invoice is inserted in the Oracle E-Business Suite interface tables. If the value is set to true, then the AutoInvoice Master Program is triggered

Property Name	Value/Default Value	Description
		immediately after inserting invoice in the Oracle E-Business Suite interface table; otherwise, the administrator needs to manually trigger it at a later point in time.
Transformation.EnableExtensions	True/false	This property should be set to true when customers want to customize the attribute mapping done in xsl.
OTM_01.USERNAME	GUEST.ADMIN	This property should be set to the username of OTM Instance. This is supplied in the OTM Transmission Header based on which OTM authorizes the message sent to it.
OTM_01.PASSWORD	CHANGEME	This property should be set to the password of OTM Instance. This is supplied in the OTM Transmission Header based on which OTM authorizes the message sent to it.
CallBackURL	http://adc60008rems.us.oracle.com:7873/httpbinding/default/SyncWorkerListLogisticsProvABCSImpl/TransmissionReport	This property should be set to send back the Transmission Report.
OTM_01.DefaultAddressType	WORK	Target SystemID is obtained from EBMHeader, but if it is empty, then we try to read it from the config file using this property.
OTM_01.PersonTypeEMP	EMP	Target SystemID is obtained from EBMHeader, but if it is empty then we try to read it from the config file using this property.
OTM_01.PersonTypeCWK	EMP	Target SystemID is obtained from EBMHeader, but if it is empty, then we try to read it from the config file using this property.
OTM_01.DefaultDomain	GUEST	Target SystemID is obtained from EBMHeader, but if it is empty, then we try to read it from the config file using this property.
OTM_01.ISPASSWORDENCRYPTED	True/False Default=False	Property specifies whether the OTM password is encrypted in the Configuration Properties file. If true, DecryptionService is being called to decode the OTM password.
DriverStatusType	DRIVER STATUS	The value configured in OTM to denote the different possible statuses for the Driver.

Settings for the SyncWorkerListBPELAggregator service

Property Name	Value/Default Value	Description
ASSIGNMENT	1	This property is used for payload completeness check. If this property is set to 1, then the check for this element

Property Name	Value/Default Value	Description
		in the payload is done in BPEL Aggregator, where the complete payload is formed and if it is not available in the payload, the process terminates.

Settings for the SyncWorkerListEbizInitialLoad service

Property Name	Value/Default Value	Description
NoOfRecords	10	This module property enables us to know how many records are extracted from the Person table of the E-business Suite.

Settings for the SyncLocationListEbizReqABCSImpl service

Property Name	Value/Default Value	Description
Default.SystemID	EBIZ_01	The application is responsible for sending the SystemID from which the request is being sent. If any requestor application fails to send this, AIA picks the sender SystemID from this config property.
RESPONSIBILITY	Global Super HRMS Manager, Standard	This property is used to populate the responsibility field in the AppsContextOutboundHeader during the QueryAPI call to Oracle E-Business Suite database (to get the full payload for a booking ID received from Oracle E-Business Suite).
USER	Operations	This property is used to populate the user field in the AppsContextOutboundHeader during the QueryAPI call to Oracle E-Business Suite database (to get the full payload for a booking ID received from Oracle E-Business Suite).
Routing.LocationEBS.SyncLocationList.RouteToCAVS	True / false	This property, which is used for populating EBMHeader's EnvironmentCode, decides whether the LocationEBS should invoke CAVS or the Provider application's business connector service. If the value is set to true, EBMHeader's Env Code is set to CAVS and the EBS routes the request to CAVS.

Property Name	Value/Default Value	Description
		If the value is set to false, EBMHeader's Env Code is set to the EnvCode mentioned in AIAConfig property Routing.LocationEBS.SyncLocationList .MessageProcessingInstruction.Environ mentCode, or if this property is not set, then the default EnvCode is PRODUCTION. And in the EBS routing rules decide based on the EnvCode where it should route.
Routing.LocationEBS.SyncLocationList.Messa geProcessingInstruction.EnvironmentCode	PRODUCTION	This property defines the Environment Code to be supplied 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.
Routing.LocationEBS.SyncLocationList.CAVS. EndpointURI	http://adc60008rems.us.oracle.c om:7873/AIAValidationSystemS ervlet/asyncrequestrecipient	This property defines the definition ID to be supplied in MessageProcessingInstruction of the EBMHeader when the RouteToCAVS property is set to true. This holds the URI of CAVS simulator, where the EBS should send the request.
ABCSExtension.PreXformABMtoEBM	True/false	This property is used as an extension point before ABM is transformed to EBM. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PreInvokeEBS	True/false	This property is used as an extension point after ABM to EBM transformation and before Invoking the EBS. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PostProcessABM	True/false	This property is used as an extension point after EBM is transformed to ABM. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false. This property is not used in this flow.
ABCSExtension.PostProcessEBM	True/false	This property is used as an extension point after EBM is transformed to ABM.

Property Name	Value/Default Value	Description
		It determines whether invocation of service at the extension point is to be made depending on whether it is true or false. This property is not used in this flow.
Transformation.EnableExtensions	True/false	This property should be set to true when customers want to customize the attribute mapping done in xsl.

Settings for the SyncLocationListLogisticsProvABCSImpl service

Property Name	Value/Default Value	Description
Default.SystemID	OTM_01	Customers are responsible for setting the SystemID in EBMHeader to which the request should be sent in the EBS. If the SystemID is not set, the ProviderABCS routes the message to this DefaultSystemID picked from the config file.
Routing.LogisticsWebService.RouteToCAVS	True/false. Default = false	This property indicates whether the message should be sent to the target application or to CAVS.
Routing.LogisticsWebService.CAVS.EndpointURI	http://adc60008rems.us.oracle.com:7873/AIAValidationSystemServlet/syncresponsesimulator	If the RouteToCAVS property is set to true, the URI of the simulator is dynamically derived by the Java activity from this property.
Routing.LocationResponseEBS.SyncLocationList.CAVS.EndpointURI	http://adc60005rems.us.oracle.com:7001/GC3Services/IntXmlService/webservice	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.
Routing.LocationResponseEBS.SyncLocationList.RouteToCAVS	True/false	Whether the Response message from the provider application should be sent to the requestor application or to CAVS is decided by RouteToCAVS property based on what we set
Routing.LocationResponseEBS.SyncLocationList.CAVS.EndpointURI	http://adc60008rems.us.oracle.com:7873/AIAValidationSystemServlet/asyncrequestrecipient	

Property Name	Value/Default Value	Description
Routing.LocationResponseEBS.SyncLocationList.MessageProcessingInstruction.EnvironmentCode	PRODUCTION	Environment Code to while populating ResponseEBM Header. If RouteToCAVS is set to true, EnvCode is set to CAVS and then the simulator URI is picked up from Routing.LocationResponseEBS.SyncLocationList.RouteToCAVS. If RouteToCAVS is set to false, Envcode is set to the value of Routing.LocationResponseEBS.SyncLocationList.MessageProcessingInstruction.EnvironmentCode, and if this value is NULL, it is set to PRODUCTION by default.
ABCSExtension.PreXformEBMtoABM	True/false	This property is used as an extension point before EBM is transformed to ABM. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PreInvokeABS	True/false	This property is used as an extension point after EBM is transformed to ABM and before invoking the target application. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PostProcessABM	True/false	This property is used as an extension point before ABM is transformed to EBM and after getting the response from the target application and before sending it back to the source application. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false. This property is not used in this flow.
ABCSExtension.PostProcessEBM	True/false	This property is used as an extension point after ABM is transformed to EBM and before sending it back to the source application. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false. This property is not used in this flow.

Property Name	Value/Default Value	Description
Transformation.EnableExtensions	True/false	This property should be set to true when customers want to customize the attribute mapping done in xsl.
OTM_01.DefaultDomain	GUEST	This property should be set to the default domain to be used for OTM Instance if the business group ID from Oracle E-Business Suite is not sent. This is populated as domain for locations to be interfaced into OTM.
OTM_01.USERNAME	GUEST.ADMIN	This property is used to set the user name of the OTM Instance.
OTM_01.PASSWORD	CHANGEME	This property should be set to the password of OTM Instance. This is populated in the OTM Transmission Header based on which OTM authorizes the message sent to it.
CallBackURL	http://adc60008rems.us.oracle.com:7873/httpbinding/default/SyncLocationListLogisticsProvABCSImpl/TransmissionReport	This property should be set to use by OTM to send back the Transmission Report.
OTM_01.ISPASSWORDENCRYPTED	True/False Default=False	Property specifies whether the OTM password is encrypted in the Configuration Properties file. If true, Decryption Service is being called to decode the OTM password.

Settings for the SyncTrainingCalendarListEbizReqABCSImpl service

Property Name	Value/Default Value	Description
Sender.SystemID	EBIZ_01	The application is responsible for sending the SystemID from which the request is being sent. If any requestor application fails to send this, AIA picks the sender SystemID from this config property.
Training.Event	TRAINING	This property is sent as the EventTypeCode in the EBM for the training enrollments in Oracle E-Business Suite.
RESPONSIBILITY	US Learning Management Administrator	This property is used to populate the Responsibility field in the AppsContextOutboundHeader during the QueryAPI call to Oracle E-Business Suite database (to get the full payload for a booking ID received from Oracle E-Business Suite).
USER	operations	This property is used to populate the User field in the AppsContextOutboundHeader during the

Property Name	Value/Default Value	Description
		QueryAPI call to Oracle E-Business Suite database (to get the full payload for a booking ID received from Oracle E-Business Suite).
Routing.ResourceCalendarEntryEBS.Sync ResourceCalendarEntryList.RouteToCAVS	True/false	This property, which is used for populating EBMHeader's EnvironmentCode, decides whether the ResourceCalendarEntryEBS should invoke CAVS or the Provider application's business connector service. If the value is set to true, EBMHeader's Env Code is set to CAVS and the EBS routes the request to CAVS. If the value is set to false, EBMHeader's Env Code is set to the EnvCode mentioned in AIAConfig property Routing.ResourceCalendarEntryEBS.SyncRes ourceCalendarEntryList.MessageProcessingIns truction.EnvironmentCode, or if this property is not set, then the default EnvCode is PRODUCTION. And in the EBS routing rules decide based on the EnvCode where it should route.
Routing.ResourceCalendarEntryEBS.Sync ResourceCalendarEntryList.MessageProce ssingInstruction.EnvironmentCode	PRODUCTION	This property defines the Environment code to be supplied 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.
Routing.ResourceCalendarEntryEBS.Sync ResourceCalendarEntryList.CAVS.Endpoint URI	http://adc60008rems.us.or acle.com:7873/AIAValidati onSystemServlet/asyncreq uestrecipient	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 send the request.
ABCSExtension.PreProcessABM	True/false	This property is used as an extension point before ABM is transformed to EBM. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PreProcessEBM	True/false	This property is used as an extension point after ABM to EBM transformation and before invoking the EBS. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PostProcessABM	True/false	This property is used as an extension point after EBM is transformed to ABM. It determines

Property Name	Value/Default Value	Description
		whether invocation of service at the extension point is to be made depending on whether it is true or false. This property is not used in this flow.
ABCSExtension.PostProcessEBM	True/false	This property is used as an extension point after EBM is transformed to ABM. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false. This property is not used in this flow.
Transformation.EnableExtensions	True/false	This property should be set to true when customers want to customize the attribute mapping done in xsl.

Settings for the SyncAbsenceCalendarListEbizReqABCSImpl service

Property Name	Value/Default Value	Description
Sender.SystemID	EBIZ_01	It is the responsibility of the application to send the SystemID from which the request is being sent. If any requestor application fails to send this, AIA picks the sender SystemID from this config property.
RESPONSIBILITY	Employee Self-Service, Standard	This property is used to populate the Responsibility field in the AppsContextOutboundHeader during the QueryAPI call to Oracle E-Business Suite database (to get the full payload for a booking ID received from Oracle E-Business Suite)
USER	Operations	This property is used to populate the User field in the AppsContextOutboundHeader during the QueryAPI call to Oracle E-Business Suite database (to get the full payload for a booking ID received from Oracle E-Business Suite).
Routing.ResourceCalendarEntryEBS.SyncResourceCalendarEntryList.RouteToCAVS	True/false	This property, which is used for populating EBMHeader's EnvironmentCode, decides whether the ResourceCalendarEntryEBS should invoke CAVS or the Provider application's business connector service. If the value is set to true, EBMHeader's Env Code is set to CAVS and the EBS routes the request to CAVS. If the value is set to false, EBMHeader's Env Code is set to the EnvCode mentioned in AIAConfig property Routing.ResourceCalendarEntryEBS.SyncResourceCalendarEntryList.MessageProcessingIns

Property Name	Value/Default Value	Description
		truction.EnvironmentCode, or if this property is not set, then the default EnvCode is PRODUCTION. And in the EBS, routing rules decide based on the EnvCode where it should route.
Routing.ResourceCalendarEntryEBS.SyncResourceCalendarEntryList.MessageProcessingInstruction.EnvironmentCode	PRODUCTION	This property defines the Environment Code to be supplied 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.
Routing.ResourceCalendarEntryEBS.SyncResourceCalendarEntryList.CAVS.EndpointURI	http://adc60008rems.us.oracle.com:7873/AIAValidationSystemServlet/asyncrequestrecipient	This property defines the Definition ID to be supplied in MessageProcessingInstruction of the EBMHeader when the RouteToCAVS property is set to true. This holds the URI of CAVS simulator where the EBS should send the request.
ABCSExtension.PreProcessABM	True/false	This property is used as an extension point before ABM is transformed to EBM. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PreProcessEBM	True/false	This property is used as an extension point after ABM to EBM transformation and before Invoking the EBS. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PostProcessABM	True/false	This property is used as an extension point after EBM is transformed to ABM. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false. This property is not used in this flow.
ABCSExtension.PostProcessEBM	True/false	This property is used as an extension point after EBM is transformed to ABM. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false. This property is not used in this flow.
Transformation.EnableExtensions	True/false	This property should be set to true when customers want to customize the attribute mapping done in xsl.

Settings for the SyncResourceCalendarEntryListLogisticsProvABCSImpl service

Property Name	Value/Default Value	Description
Default.SystemID	OTM_01	The customers are responsible for setting the SystemID in EBMHeader to which the request should be sent in the EBS. If the SystemID is not set, the ProviderABCS routes the message to this DefaultSystemID picked from the config file.
Routing.LogisticsWebService.RouteToCAVS	True/false	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.
Routing.LogisticsWebService.CAVS.EndpointURI	http://adc60008rems.us.oracle.com:7873/AIAValidationSystemServlet/syncresponsesimulator	If the RouteToCAVS property is set to true, the URI of the simulator is dynamically derived by the Java activity from this property.
Routing.LogisticsWebService.OTM_01.EndpointURI	http://adc60005rems.us.oracle.com:7001/GC3Services/IntXmlService/webservice	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.
Routing.ResourceCalendarEntryResponseEBS.SyncResourceCalendarEntryList.RouteToCAVS	True/false	Whether the Response message from the provider application should be sent to the requestor application or to CAVS is decided by RouteToCAVS property, based on what we set Environment Code to while populating ResponseEBM Header.
Routing.ResourceCalendarEntryResponseEBS.SyncResourceCalendarEntryList.CAVS.EndpointURI	http://adc60008rems.us.oracle.com:7873/AIAValidationSystemServlet/asyncrequestrecipient	If RouteToCAVS is set to true, EnvCode is set to CAVS and then the simulator URI is picked up from Routing.ResourceCalendarEntryResponseEBS.SyncResourceCalendarEntryList.RouteToCAVS.
Routing.ResourceCalendarEntryResponseEBS.SyncResourceCalendarEntryList.MessageProcessingInstruction.EnvironmentCode	PRODUCTION	If RouteToCAVS is set to false, Envcode is set to the value of Routing.ResourceCalendarEntryResponseEBS.SyncResourceCalendarEntryList.MessageProcessingInstruction.EnvironmentCode, and if this value is NULL, it is set to PRODUCTION by default.
ABCSExtension.PreProcessEBM	True/false	An enterprise business flow can also invoke

Property Name	Value/Default Value	Description
		custom code during its execution. These serve as extensibility points. Typical ABCS can have four Extension points. This property is used as an extension point before EBM is transformed to ABM. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PreProcessABM	True/false	This property is used as an extension point after EBM is transformed to ABM and before invoking the target application. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PostProcessABM	True/false	This property is used as an extension point before ABM is transformed to EBM and after getting the response from the target application and before sending it back to the source application. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false. This property is not used in this flow.
ABCSExtension.PostProcessEBM	True/false	This property is used as an extension point after ABM is transformed to EBM and before sending it back to the source application. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false. This property is not used in this flow.
Transformation.EnableExtensions	True/false	This property should be set to true when customers want to customize the attribute mapping done in xsl.
OTM_01.USERNAME	GUEST.ADMIN	This property should be set to the username of OTM Instance. This is populated in the OTM Transmission Header based on which OTM authorizes the message sent to it.
OTM_01.PASSWORD	CHANGEME	This property should be set to the password of OTM Instance. This is populated in the OTM Transmission Header based on which OTM authorizes the message sent to it.
CallBackURL	http://adc60008rems.us.oracle.com:7873/httpbinding/default/SyncResourceCalendarEntryListLogisticsProvABCSImpl/TransmissionReport	This property should be set to use by OTM to send back the Transmission Report.
OTM_01.ISPASSWORDENCRYPTED	True/False Default=False	Property specifies whether the OTM password is encrypted in the Configuration Properties file. If true, Decryption Service is being called to

Property Name	Value/Default Value	Description
		decode the OTM password.

Settings for the CalculateDriverIncentiveCompensationListLogisticsReqABCSImpl service

Property Name	Value/Default Value	Description
Default.SystemID	OTM_01	The application is responsible for sending the SystemID from which the request is being sent. If any requestor application fails to send this, AIA picks the sender SystemID from this config property.
Routing.RouteToCAVS	True/false	This property, which is used for populating EBMHeader's EnvironmentCode, decides whether the PayableInvoiceEBS should invoke CAVS or the Provider application's business connector service. If the value is set to true, EBMHeader's Env Code is set to CAVS and the EBS routes the request to CAVS. If the value is set to false, EBMHeader's Env Code is set to the EnvCode mentioned in AIAConfig property Routing.PayableInvoiceEBS.CalculateDriverIncentiveCompensationList.MessageProcessingInstruction.EnvironmentCode, or if this property is not set, then the default EnvCode is PRODUCTION. And in the EBS, routing rules decide based on the EnvCode where it should route.
Routing.PayableInvoiceEBS.CalculateDriverIncentiveCompensationList.MessageProcessingInstruction.EnvironmentCode	PRODUCTION	This property defines the Environment Code to be supplied 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.
Routing.PayableInvoiceEBS.CalculateDriverIncentiveCompensationList.CAVS.EndpointURI	http://adc60008rems.us.oracle.com:7873/AIAValidationSystemServlet/asyncrequestrecipient	This property defines the Definition ID to be supplied in MessageProcessingInstruction of the EBMHeader when the RouteToCAVS property is set to true. This holds the URI of CAVS simulator where the EBS should send the request.
ABCSExtension.PreProcessABM	True/false	This property is used as an extension point before ABM is transformed to EBM. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
ABCSExtension.PreProcessEBM	True/false	An enterprise business flow can also invoke custom code during its execution. These serve as extensibility points. Typical ABCS can have

Property Name	Value/Default Value	Description
		four extension points. This property is used as an extension point after ABM to EBM transformation and before Invoking the EBS. It determines whether invocation of service at the extension point is to be made depending on whether it is true or false.
Transformation.EnableExtensions	True/false	This property should be set to true when customers want to customize the attribute mapping done in xsl.
~~OTM_01.WORKINVOICE.STATUS .NAME~~	~~WORK_INVOICE_SENT~~	~~This property is Work invoice Status.~~
~~OTM_01.WORKINVOICE.CUSTO M.STATUS.NAME~~	~~CUSTOM_WORK_INVOICE_SE NT_FAILED~~	~~This property is Work invoice Custom Status.~~
~~OTM_01.WORKINVOICE.CUSTO M.STATUS.VALUE~~	~~CUSTOM_WORK_INVOICE_SE NT_FAILED_YES~~	~~This property value is set to denote that the Work invoice is errored out in OIC.~~
OTM_01.WORKINVOICE.STATUS .VALUE	WORK_INVOICE_SENT_NOT_S ENT	This property value is set to denote that the Work invoice is not sent to OIC.
CallBackURL	http://adc60009rems.us.oracle.co m:7859 /httpbinding/default/ CalculateDriverIncentiveCompens ationListLogisticsReqABCSImpl/ TransmissionReport	This property should be set to send back the Transmission Report.
Routing.LogisticsWebService.OTM _01.EndpointURI	http://adc60005rems.us.oracle.co m:7001/GC3Services/IntXmlServi ce/call	This property should be set to send back the Work invoice status to the OTM.
OTM_01.DefaultDomain	DIT1	The value of this property should be set to the domain of the OTM that the user logged in to.
OTM_01.USERNAME	DIT1.ADMIN	The value of this property should be set to the user name of the OTM that the user logged in to.
OTM_01.PASSWORD	CHANGEME	The value of this property should be set to the password of the OTM that the user logged in to.
OTM_01.ISPASSWORDENCRYPT ED	True/False Default=False	Property specifies whether the OTM password is encrypted in the Configuration Properties file. If true, DecryptionService is being called to decode the OTM password.
OTM_01.WORKINVOICE.STATUS .VALUE.SUCCESS	WORK_INVOICE_SENT_RECEI VED	Status value with which the work invoice status needs to be updated in OTM when the work invoice status is successfully imported to the interface tables of Oracle E-Business Suite
OTM_01.WORKINVOICE.STATUS .VALUE.FAILED	WORK_INVOICE_SENT_FAILED	Status value with which the work invoice status needs to be updated in OTM when the

Property Name	Value/Default Value	Description
		import of work invoice details into interface tables of Oracle E-Business Suite fails.

Settings for the CalculateDriverIncentiveCompensationListEbizProvABCSImpl service

Property Name	Value/Default Value	Description
Default.SystemID	EBIZ_01	The customer is responsible for setting the SystemID in EBMHeader to which the request should be sent in the EBS. If the SystemID is not set, the ProviderABCS routes the message to this DefaultSystemID picked from the config file.
Routing.CalculateDriverIncentiveCompensatiotEbizAdapter.RouteToCAVS	True/False	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.
Routing.CalculateDriverIncentiveCompensatiotEbizAdapter.CAVS.EndpointURI	http://adc60008rems.us.oracle.com:7873/AIAValidationSystemServlet/asyncrequestrecipient	If the RouteToCAVS property is set to true, the URI of the simulator is dynamically derived by the Java activity from this property.
Routing.CalculateDriverIncentiveCompensatiotEbizAdapter.EBIZ_01.EndpointURI	http://adc60008rems.us.oracle.com:7873/event/AIASystem/Ebiz/ABCS/CalculateDriverIncentiveCompensatiotEbizAdapter	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.
ABCSExtension.ABCSExtension.PreProcessABM	PRODUCTION	This property is used as an extension point after EBM is transformed to ABM and before invoking the target application. It determines whether invocation of service at the extension point is made depending on whether it is true or false.
ABCSExtension.ABCSExtension.PostProcessABM	True/False	This property is used as an extension point after EBM is transformed to ABM and before invoking the target application. It determines whether invocation of service at the extension point is made depending on whether it is true or false.
ABCSExtension.ABCSExtension.PreProcessEBM	True/False	This property is used as an extension point after EBM is transformed to ABM and before invoking the target application. It determines whether invocation of service at the extension point is made depending on whether it is true or false.
ABCSExtension.ABCSExtension.PostProcessEBM	True/False	This property is used as an extension point after EBM is transformed to ABM and before invoking the target application. It determines whether

Property Name	Value/Default Value	Description
		invocation of service at the extension point is made depending on whether it is true or false.
Transformation.EnableExtensions	True/False	This property should be set to true when customers want to customize the attribute mapping done in xsl.
EBIZ_01.COMMIT_FLAG	T/F	This property is set to T so that the data gets committed. This is a mandatory field of the API and should be populated with a T.
EBIZ_01.TRANSACTION_TYPE	AIA	This property is to set the transaction type for the API. This is a mandatory field of the API and should be populated with AIA.
EBIZ_01.API_VERSION	1.0	This property should be set to mention the version of the API that is used. This is a mandatory field of the API and should be populated with 1.0.

Settings for the module level Driver for the SyncTrainingCalendar Flow

Property Name	Value/Default Value	Description
Enrollment.Cancel	Cancellation::Cancelled::Cancel	The values configured in Oracle E-Business Suite to denote cancellations of training enrollments.

Routing Rules

This section contains the routing rules to be used for the Interoperability.

For PayableInvoiceEBS

Operation	Filter Condition	Service Invoked	Description
CalculateDriverIncentiveCompensationLis	(/ebo:CalculateDriverIncentiveCompensationListEBM/corecom:EBMHeader/corecom:MessageProcessingInstruction/corecom:EnvironmentCode,'CAVS') != 0};{namespace ebo=http://xmlns.oracle.com/EnterpriseObjects/Core/EBO/PayableInvoice/V1 namespace corecom=http://xmlns.oracle.com/EnterpriseObjects/	CalculateDriverIncentiveCompensationListEbizProvABCSImpl	This is Driver PIP routing rule pertaining to Work Invoice flow.

Operation	Filter Condition	Service Invoked	Description
	Core/Common/V2}		

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