

**Oracle® CRM On Demand Integration Pack for
JD Edwards EnterpriseOne: Lead to Order 3.1 -
Implementation Guide**

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Oracle CRM On Demand Integration Pack for JD Edwards EnterpriseOne: Lead to Order 3.1 - Implementation Guide

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Preface

Welcome to the Oracle CRM On Demand Integration Pack for JD Edwards EnterpriseOne: Lead to Order 3.1 - Implementation Guide.

Oracle Application Integration Architecture (AIA) provides the following guides and resources for this release:

Oracle AIA Guides

- Oracle Fusion Middleware Infrastructure Components and Utilities User's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)
- Oracle Fusion Middleware Installation and Upgrade Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)
- Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)
- Oracle Fusion Middleware Reference Process Models User's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)
- Oracle Fusion Middleware Migration Guide for Oracle Application Integration Architecture 11g Release 1 (11.1.1.4.0)
- Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)

Additional Resources

The following resources are also available:

Resource	Location
Oracle Application Integration Architecture: Product-to-Guide Index	Oracle Technology Network: http://www.oracle.com/technetwork/index.html
Known Issues and Workarounds	My Oracle Support: https://support.oracle.com/
Release Notes	Oracle Technology Network: http://www.oracle.com/technetwork/index.html
Documentation updates	My Oracle Support: https://support.oracle.com/

Part 1: Understanding the Delivered Integrations

[Chapter 1: Oracle CRM On Demand Integration Pack for JD Edwards EnterpriseOne: Lead to Order 3.1](#)

[Chapter 2: Bulk Data Loads and Synchronization](#)

[Chapter 3: Process Integration for Customer Management](#)

[Chapter 4: Process Integration for Product Management](#)

[Chapter 5: Process Integration for Order Management](#)

Chapter 1: Oracle CRM On Demand Integration Pack for JD Edwards EnterpriseOne: Lead to Order 3.1

This chapter provides an overview of the Oracle CRM On Demand Integration Pack for JD Edwards EnterpriseOne: Lead to Order process integration pack (Lead to Order PIP) and discusses:

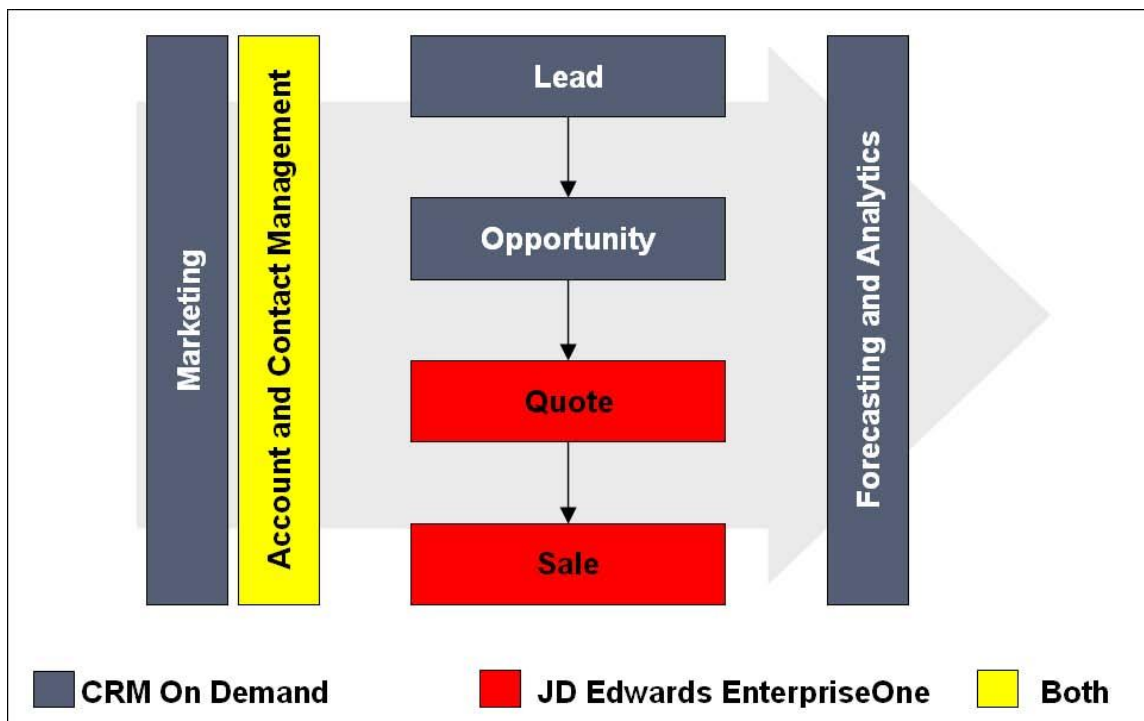
- Lead to Order business process flows
- Installation and implementation of the Lead to Order PIP
- Session management for the Lead to Order PIP
- Solution assumptions and constraints.

Overview

The Lead to Order PIP provides a seamless and robust Lead to Order business process. Leveraging the best-of-breed front office with best-of-breed back office applications, this PIP provides a solution that gives a streamlined, end-to-end Lead to Order business process that enables users to combine the sales campaign management, mobile sales, and sales analytical features of CRM On Demand with the JD Edwards EnterpriseOne inventory, pricing, and order processing functionality. The combination of the two systems provides users with a comprehensive lead-to-order system.

Users can enter or update customer, contact, and product information in JD Edwards EnterpriseOne and synchronize that information to CRM On Demand. Users can leverage this data within CRM On Demand to manage sales leads and opportunities. When the sales cycle progresses to the point where quote orders and sales orders are required, then users can initiate both quote and sales order creation from CRM On Demand. Users then create and maintain these orders within JD Edwards EnterpriseOne. From CRM On Demand, users can view all of the quote orders and sales orders that are associated with a customer.

This diagram illustrates the systems which are responsible for each piece of the Lead to Order PIP:



Lead to order business process

Lead to order business process flow

Using the process integrations in this PIP, you can:

1. Bulk load customer and contact information from JD Edwards EnterpriseOne to CRM On Demand.

This process flow is a master data flow that enables users to bulk load data about customers, and their associated contact people, from the JD Edwards EnterpriseOne database into the CRM On Demand database. This process flow is one-directional from JD Edwards EnterpriseOne to CRM On Demand. This flow can also be used to bulk synchronize customer and contact data after the initial data load has been processed.

2. Create, update, delete, and synchronize customer information between JD Edwards EnterpriseOne and CRM On Demand.

This process flow is a transactional flow that enables users to update customer information in either JD Edwards EnterpriseOne or CRM On Demand, and then synchronize those changes between the systems so that customer data is in sync in both systems. This process flow is bidirectional between the two systems.

3. Bulk load product information from JD Edwards EnterpriseOne to CRM On Demand.

This process flow is a master data flow that enables users to bulk load data about products from the JD Edwards EnterpriseOne database into the CRM On Demand database. This process flow is one-directional from JD Edwards EnterpriseOne to CRM On Demand.

4. Create, update, delete, and synchronize product information in JD Edwards EnterpriseOne and then synchronize the data to CRM On Demand.

This process flow is a transactional flow that enables users to update product information in JD Edwards EnterpriseOne and synchronize those changes to CRM On Demand.

Note: This flow is not bidirectional between the two systems. Changes to product information in CRM On Demand are not synchronized to JD Edwards EnterpriseOne.

5. Generate sales quotes and sales orders in JD Edwards EnterpriseOne that are based on sales opportunities in CRM On Demand.

This process flow is a transactional flow that enables users to launch the EnterpriseOne quote or sales order generation process from CRM On Demand using custom web links. The web links enable CRM On Demand users to access EnterpriseOne and to generate quotes and sales orders, which are generated and maintained in JD Edwards EnterpriseOne. CRM On Demand users can also use web links to view quotes and orders in EnterpriseOne from CRM On Demand.

Implementing the Lead to Order PIP can help an organization by:

- Enabling users to choose an appropriate On Demand solution for their users, without concern over data silos or standalone CRM implementations reducing the value of the CRM systems in their organization.
- Providing consistent execution of complete lead-to-order processes.
- Providing a single view of the customer, as a single CRM instance would, resulting in a truly customer-centric organization.
- Lowering the cost and complexity that is associated with implementing a hybrid CRM solution.
- Providing a better upgrade plan than a custom built solution.
- Providing an industry-leading sales force automation solution to JD Edwards EnterpriseOne customers, including capabilities that are not available natively within EnterpriseOne.

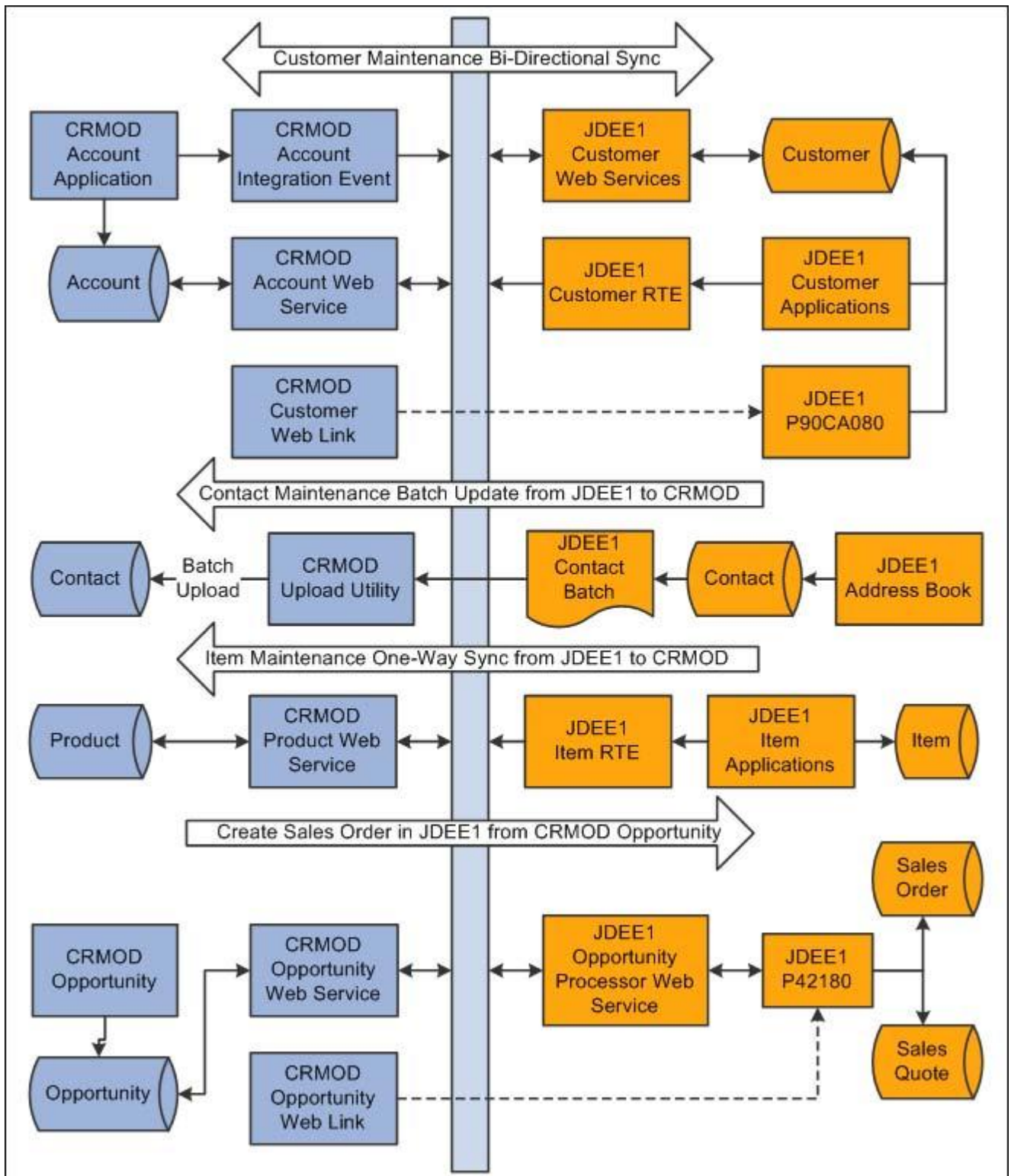
These capabilities include imbedded analytical tools, a rich mobility solution, and sales campaign management.

Lead to Order Business Process Flows

The Lead to Order PIP consists of these integration flows:

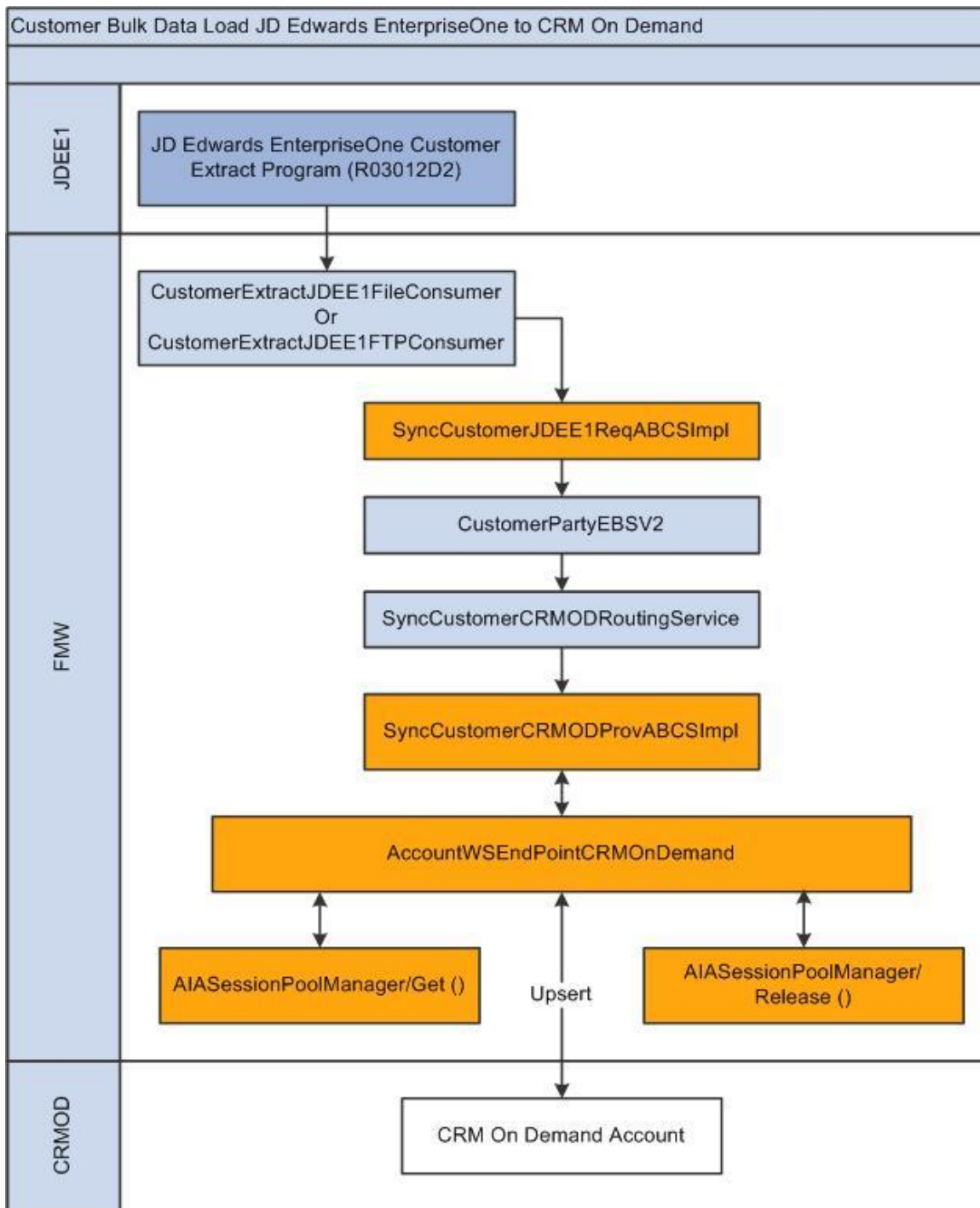
- Bulk data loading integration flows for customer, contact, and product.
- Customer management.
- Product management.
- Order and quote processing.

This diagram illustrates the main Lead to Order business process flow:

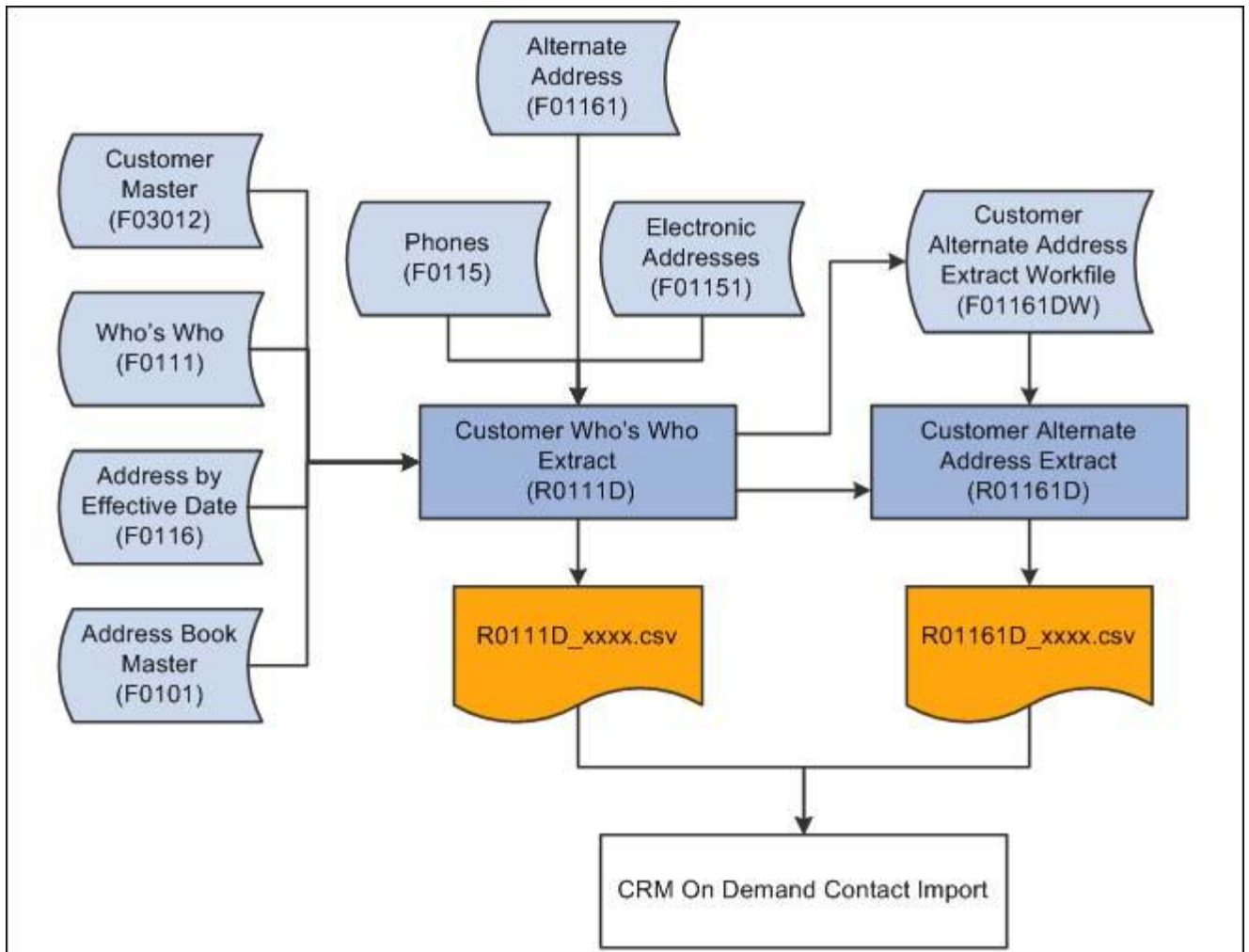


Main Lead to Order business process flow

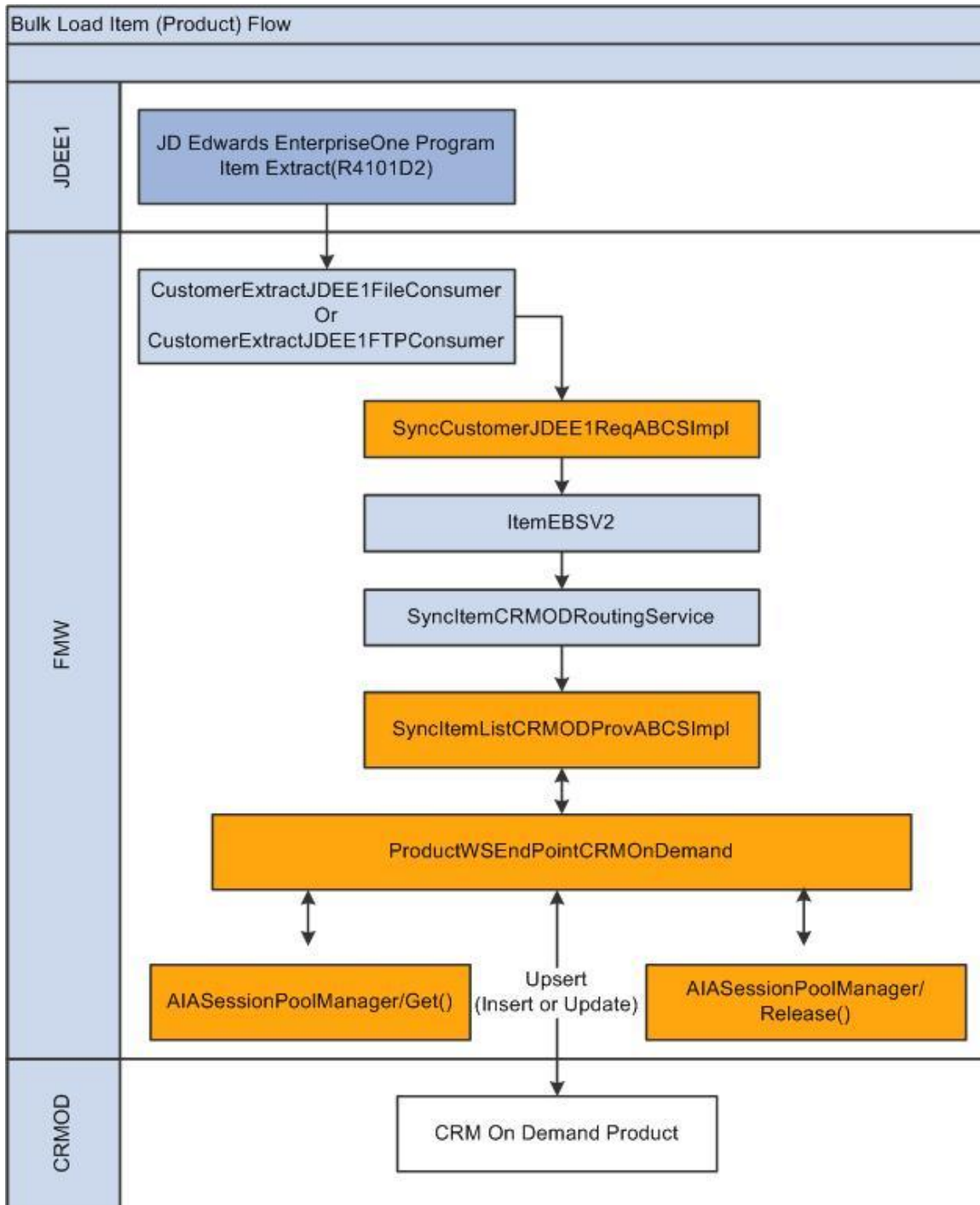
These diagrams illustrate the individual Lead to Order process flows:



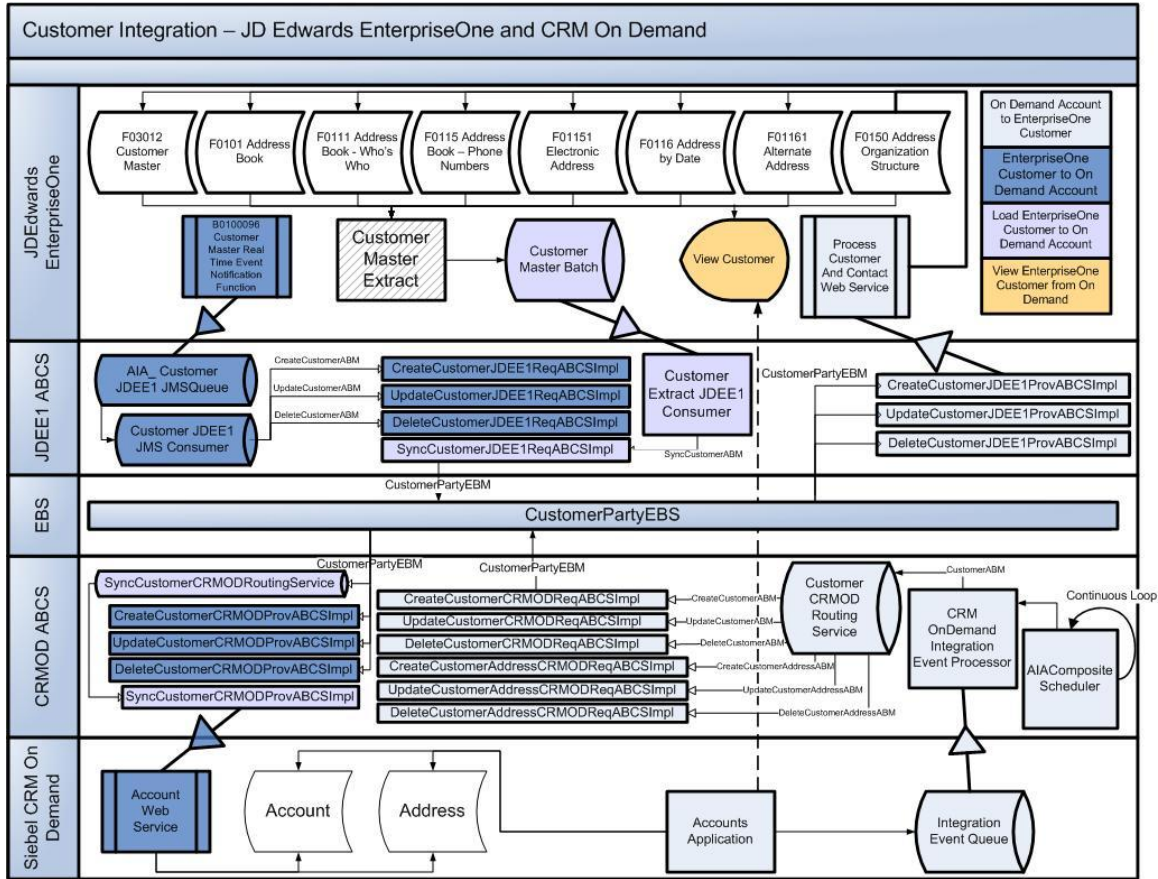
Customer bulk load process flow



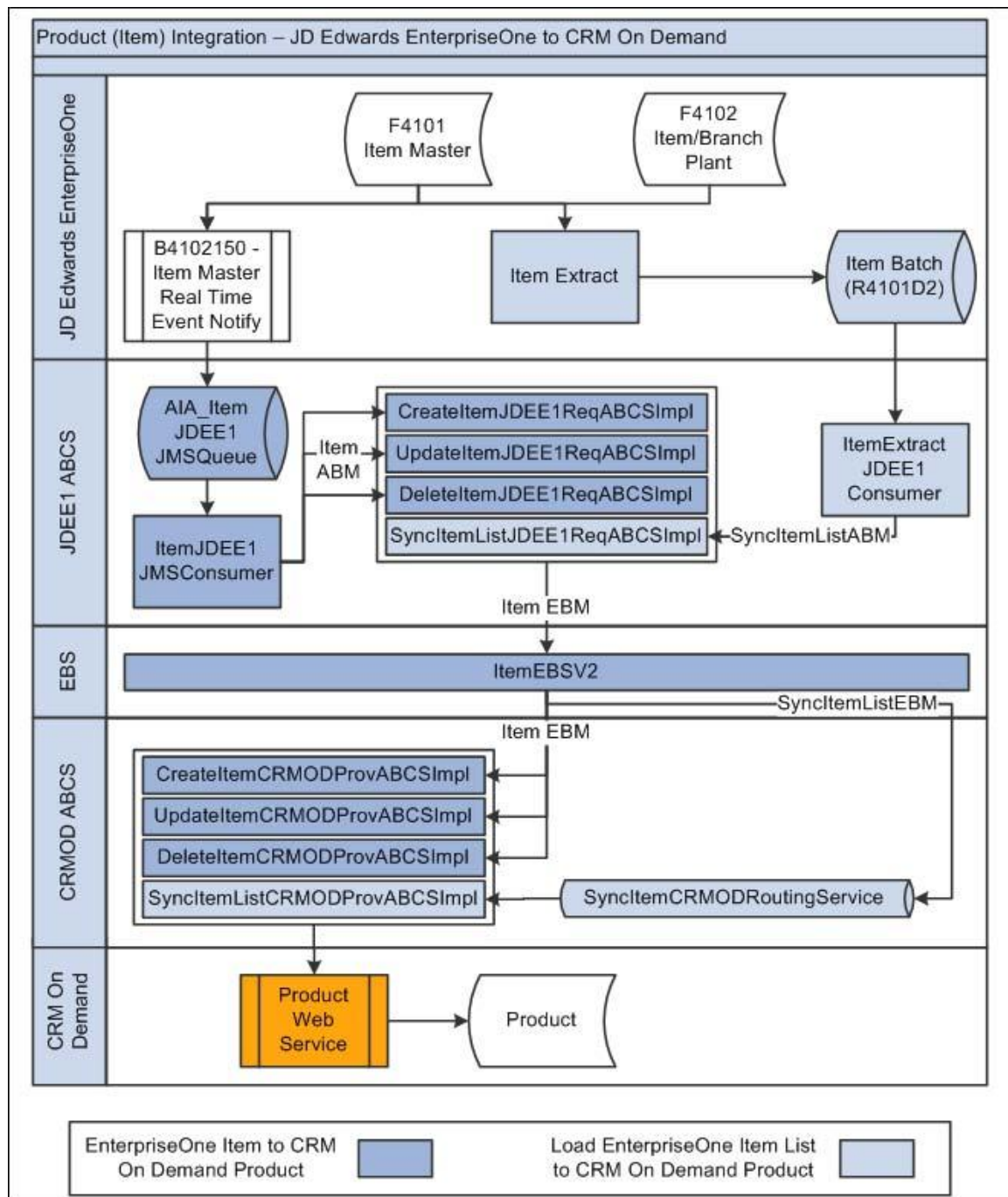
Contact data load process flow



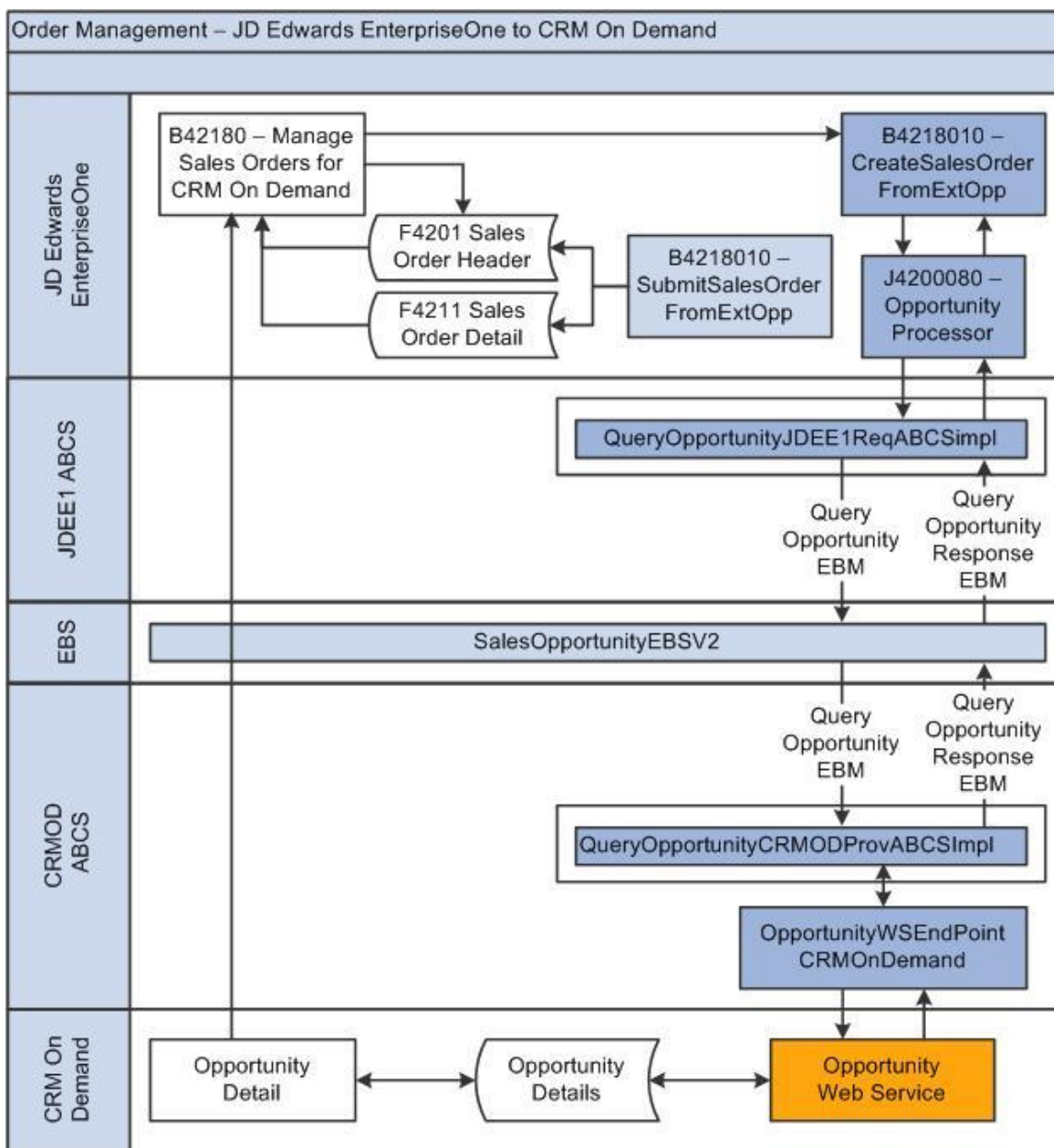
Product bulk data load process flow



Customer management process flow



Product management process flow



Order management process flow

The Lead to Order business process enables organizations to complete the sales cycle using data and applications in both the JD Edwards EnterpriseOne and CRM On Demand systems. By combining the complex back-office systems and applications in JD Edwards EnterpriseOne, such as Inventory Management, Advanced Pricing, and Sales Order Management, with the robust customer-facing systems and applications in CRM On Demand, which include a powerful campaign management and mobile sales offering, an organization can increase their sales revenue and the efficiency of their sales team.

The Lead to Order business process supports all of the functionality that is associated with the JD Edwards EnterpriseOne Sales Order Management and Advanced Pricing systems, because all pricing and order processing is completed within JD Edwards EnterpriseOne. The business process also supports all of the campaign and contact management functionality, mobile sales processing, and sales data analysis that is offered by CRM On Demand, because all of these steps in the Lead to Order process are completed within CRM On Demand.

Using the Lead to Order PIP, the Lead to Order process might look as follows:

1. The user enters a lead into CRM On Demand.

Users may enter leads manually, or the system may create leads as the result of a campaign in CRM On Demand.

2. The lead is qualified and converted to an opportunity in CRM On Demand.

When a user converts a lead to an opportunity, an account record must exist in CRM On Demand. If the account record does not exist, CRM On Demand creates the record. If the account is created at this point, the records that are associated with that account are created in both CRM On Demand and JD Edwards EnterpriseOne. Changes made to the account records in either system are synchronized bidirectionally to ensure that the two systems are accurate.

Note: Contact information is not synchronized from CRM On Demand to JD Edwards EnterpriseOne.

3. As the sales cycle continues, users can associate products with a sales opportunity.

Users can select from a list of orderable products that were exported from JD Edwards EnterpriseOne into CRM On Demand. Product information is maintained in JD Edwards EnterpriseOne and synchronized to CRM On Demand.

4. Users can generate a quote in JD Edwards EnterpriseOne directly from the CRM On Demand sales opportunity.

The system creates the quote using the account and product information stored in the CRM On Demand opportunity record and the pricing information stored in JD Edwards EnterpriseOne. The quote is stored and maintained in JD Edwards EnterpriseOne.

5. Users can view an account or opportunity record in CRM On Demand and access JD Edwards EnterpriseOne from CRM On Demand.

While in JD Edwards EnterpriseOne, users can view existing quotes and sales orders that have been generated for the opportunity.

Quotes and sales orders exist in JD Edwards EnterpriseOne. When a user accesses JD Edwards EnterpriseOne from a CRM On Demand opportunity, the system displays all of the quotes and sales orders that are associated with that opportunity.

6. When users close a sale, they can generate a sales order.

Users can initiate the sales order creation process by accessing JD Edwards EnterpriseOne directly from the opportunity in CRM On Demand using custom web links. After you access EnterpriseOne, you can generate a sales order. The system creates the order in EnterpriseOne using the account and product information that is stored in the CRM On Demand opportunity record and the pricing information that is stored in JD Edwards EnterpriseOne. The sales order is stored and maintained in JD Edwards EnterpriseOne. Alternatively, users can convert an existing sales quote, which is stored in JD Edwards EnterpriseOne, into a sales order.

Installation and Implementation of the Lead to Order PIP

Before you can use any of the integration processes that are included in the Lead to Order PIP, you must install all of the participating applications. As you install, ensure that each system meets the minimum technical requirements to support the AIA Foundation Pack and the PIP.

For more information, see *Oracle Fusion Middleware Installation and Upgrade Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*.

After the installation process is complete, users must complete the implementation steps for the Lead to Order PIP.

For more information, see Chapter 6: Configuring the Lead to Order PIP.

Session Management for the Lead to Order PIP

All operations including create, read, update, and delete in CRM On Demand are performed by means of CRM On Demand public Web services. For all Web service calls to CRM On Demand, a valid session ID is required. As part of the data synchronization architecture, a pool of CRM On Demand sessions are created on demand and reused among different BPEL processes that make Web service calls to CRM On Demand.

This pool of CRM On Demand sessions in the SOA server are managed by the AIA Common Utility called Session Pool Manager (SPM). SPM manages sessions for multiple instances of CRM On Demand and other Oracle application Web servers. Each application Web server instance is identified by a host ID. The default host ID for this PIP is CRMOD_01.

For all subsequent requests, available open sessions are pulled from the session pool table. If no open sessions for reuse exist, a new session is created. If an existing session token times out, a new session is created by means of the preconfigured integration user ID and password credentials that are stored in AIA Configurations Properties.

For more information about SPM, see *Oracle Application Integration Architecture Process Integration Pack Utilities Guide*, "Session Pool Manager."

Solution Assumptions and Constraints

These are the assumptions and constraints for the Lead to Order PIP:

1. The ability to merge accounts within CRM On Demand is not allowed for accounts that are synchronized to JD Edwards EnterpriseOne; JD Edwards EnterpriseOne does not allow accounts to be merged.
2. JD Edwards EnterpriseOne pricing is not integrated to CRM On Demand and is not used to price products that are associated with a CRM On Demand opportunity.

When you create a sales opportunity in CRM On Demand, you can manually enter pricing information. When you convert that opportunity to a quote or sales order, which you create in JD Edwards EnterpriseOne, the quote or sales order uses the pricing information that is stored in JD Edwards EnterpriseOne.

3. Support for configured items and kits is not provided from the CRM On Demand opportunity to the JD Edwards EnterpriseOne quote or sales order.

Note: No explicit error checking for kit or configured items exists.

4. Contact information is not synchronized bidirectionally between JD Edwards EnterpriseOne and CRM On Demand.

Contact information can be bulk loaded and bulk synchronized from JD Edwards EnterpriseOne to CRM On Demand. Once a contact exists in CRM On Demand, maintenance of that record is typically completed within CRM On Demand. However, if you maintain contact data in CRM On Demand and synchronize the existing records, then the CRM On Demand records are overwritten with data from JD Edwards EnterpriseOne.

5. Limitations exist for the shipping and billing address data for customers.

JD Edwards EnterpriseOne customer records can be split into separate entities based on different locations. These locations are defined as the ship-to and bill-to locations. Each location associated with the customer can be linked using related address functionality. In CRM On Demand, a single customer account record tracks both the shipping and billing address of the customer entity, and this record does not allow separate entities for the same customer.

These limitations can affect the bulk load process and the customer management process. This issue is discussed in detail later in this guide.

For more information, see Chapter 3: Process Integration for Customer Management > Solution Assumptions and Constraints.

6. The integration does not support branch or plant item information from JD Edwards EnterpriseOne.

CRM On Demand does not support the concept of setting up the same item or product in multiple branches of an organization. Therefore, only data in the Item Master table is used when synchronizing product information between JD Edwards EnterpriseOne and CRM On Demand. Item information set up for a specific branch/plant is not synchronized.

7. The integration is limited in the support of customers by line of business.

In JD Edwards EnterpriseOne, the same customer can exist in different lines of business. CRM On Demand does not support the concept of having the same customer exist in different lines of business. When you synchronize customer data from JD Edwards EnterpriseOne to CRM On Demand, all of the customer records, for each line of business, are published. However, CRM On Demand only consumes one of the customer records. CRM On Demand consumes the default line of business, which is JD Edwards EnterpriseOne Company 00000. You can specify the line of business to be consumed by CRM On Demand.

8. Because the Environment name is used to identify a single instance of EnterpriseOne, some restrictions exist for OCM mappings when using this PIP.

All users and roles that are working in a specific environment must have their OCM mappings set to the same data source for the tables that are used for the Lead to Order PIP. This requirement ensures that cross-references are properly maintained.

Note: Additional assumptions and constraints might exist for each of the process integration flows. These items are documented in their respective chapters.

Chapter 2: Bulk Data Loads and Synchronization

This chapter provides an overview of bulk data loads and synchronization and discusses:

- Loading and synchronizing customer and contact data
- Loading and synchronizing product data

Overview

The Lead to Order PIP requires that specific business data in the JD Edwards EnterpriseOne and CRM On Demand databases is always synchronized. The Lead to Order PIP enables you to:

- Initially load your business data in bulk.
- Synchronize the data that exists in both databases after the initial load is complete.

Bulk loading of business data is a one-way process that loads data from JD Edwards EnterpriseOne into CRM On Demand. You must bulk load data for customers, contacts, and products before you can fully use the Lead to Order PIP.

After you bulk load data from JD Edwards EnterpriseOne into CRM On Demand, you can bulk synchronize data periodically to ensure that the data in the two systems is current and synchronized. Additionally, after you initially load business data, you can rerun the bulk load process to load large amounts of new data. This type of bulk load might be necessary to accommodate a business data purchase or the acquisition of a new organization.

Note: The processes for bulk loading and for bulk synchronization are almost the same. The process either adds records to CRM On Demand if the incoming record does not already exist or synchronizes the record in CRM On Demand if the record already exists.

To bulk load and synchronize data from JD Edwards EnterpriseOne to CRM On Demand, you run extract programs in JD Edwards EnterpriseOne. These programs generate XML or CSV files that contain the data that will be uploaded into CRM On Demand. The system writes these files to folders on the JD Edwards EnterpriseOne Enterprise Server. You specify the location of these folders in the processing options of the extract programs. The details of the individual extract programs and files are discussed in later sections of this chapter.

After you create the XML files, you can use one of two methods to pass that data to CRM On Demand:

- FTP
- WebLogic Server

If you use the FTP method, the bulk data load and synchronization process for customer and product data requires that you configure an FTP adapter to monitor the folders for newly created extract files. When the FTP adapter locates a new file, the appropriate mediator process debatches the files into separate instances. You use debatching to split large XML files into several smaller XML files.

Alternatively, you can move your XML files to the <AIA_HOME>/JDEE1_In folder on the WebLogic Server. If you use this method, the appropriate EBS process detects the file and debatches it into separate instances.

After the XML files are debatched, routing services route each individual XML file to the appropriate JD Edwards EnterpriseOne requester service, and then to the appropriate enterprise business service (EBS), which passes the message to the CRM On Demand routing service. The routing service calls a CRM On Demand provider service, which routes the message to a CRM On Demand utility. The utility establishes a session with CRM On Demand and calls a CRM On Demand web service, which inserts or updates the records in CRM On Demand.

The *contact* data load and synchronization process creates .csv files that must be manually manipulated and then imported directly into CRM On Demand. No mediator process is used in the load or synchronization of contact data.

Note: If you use the FTP method for bulk data loading and synchronization, you must configure an FTP Server on the JD Edwards EnterpriseOne Enterprise Server. The FTP adapter must be configured to use the FTP connection that is set up on the Enterprise Server.

For information about error handling during the bulk load process, see Chapter 6: Configuring the Lead to Order PIP > Handling Errors.

Important! If filters are implemented in the EBS routing rules, we strongly recommend that you use the same data selection filters when running the bulk data load programs for customer or item.

Loading and Synchronizing Customer and Contact Data

This section provides an overview of customer and contact data load and synchronization, lists solution assumptions and constraints, and discusses how to bulk load and synchronize customer and contact data.

Understanding Customer and Contact Data Load and Synchronization

Customer and contact data is stored in the JD Edwards EnterpriseOne address book and customer master tables. This piece of the process integration enables users to extract customer and contact data from JD Edwards EnterpriseOne and load it into CRM On Demand. You can initially populate CRM On Demand with JD Edwards EnterpriseOne customer and contact data, and you can periodically update, or synchronize, customer and contact data in CRM On Demand. Synchronization updates are used to correct data that has become out-of-sync between the two systems.

Users can select which customers are loaded from JD Edwards EnterpriseOne to CRM On Demand using selection criteria, which includes JD Edwards EnterpriseOne category codes and search types.

To extract customer and contact data from JD Edwards EnterpriseOne, you must run the extract programs in JD Edwards EnterpriseOne. These programs create XML files that contain customer data and .csv files that contain contact data that has been extracted from the JD Edwards EnterpriseOne database. These files are stored in a folder on the JD Edwards EnterpriseOne Enterprise Server. You specify the location of the folders in the processing options of the extract programs.

After the files are written to the Enterprise Server, one of these consumer services retrieves and debatches the XML files:

Composite: CustomerExtractJDEE1Consumer

- CustomerExtractJDEE1FTPConsumer_ep

Use this consumer service when you configure the FTP adapter to locate files.

- CustomerExtractJDEE1FileConsumer_ep

Use this consumer service when you move your files to the <AIA_HOME>/JDEE1_In folder on the WebLogic Server.

The appropriate consumer retrieves and debatches the XML files. XML debatching allows the large XML file that the extract programs create to be split into several smaller XML files. The routing service then routes each individual XML file to the SyncCustomerJDEE1ReqABCSImpl. (ABCS refers to *application business connector service*.) The messages are then passed to the CustomerPartyEBSV2, which sends the messages to the SyncCustomerCRMODRoutingService and then to the SyncCustomerCRMODProvABCSImpl. Finally, the provider service calls the AccountWSEndpoint CRM On Demand utility, which establishes a session with CRM On Demand and calls a CRM On Demand web service AccountWS_AccountUpsert, and the records are inserted or updated in CRM On Demand.

Note: CRM On Demand has a limitation in the batch insert and update functionality, allowing a maximum of 20 records to be inserted or updated at a time. You can configure the debatching process that is performed by the consumer services so that the individual batches include 20 or fewer records.

To import contact data, you must first manually manipulate the .csv files that are created by the contact data extract programs. After the data in these files is formatted correctly, you use the standard import functionality from CRM On Demand to import the contact data.

Customer Data

To extract customer data from JD Edwards EnterpriseOne, you run the Customer Extract batch program (R03012D2) in JD Edwards EnterpriseOne. This program extracts data from these JD Edwards EnterpriseOne tables:

- F0101 - Address Book Master
- F0111 - Address Book -Who's Who
- F0116 - Address by Date
- F03012 - Customer Master by Line of Business
- F0150 - Organization Structure

The output of the R03012D2 extract program includes:

- An XML file that contains customer information for the specified customers. All parent address and related address information is removed from this file.
- An XML file that contains parent and related address information for the specified customers.
- A PDF that contains a successful completion message.

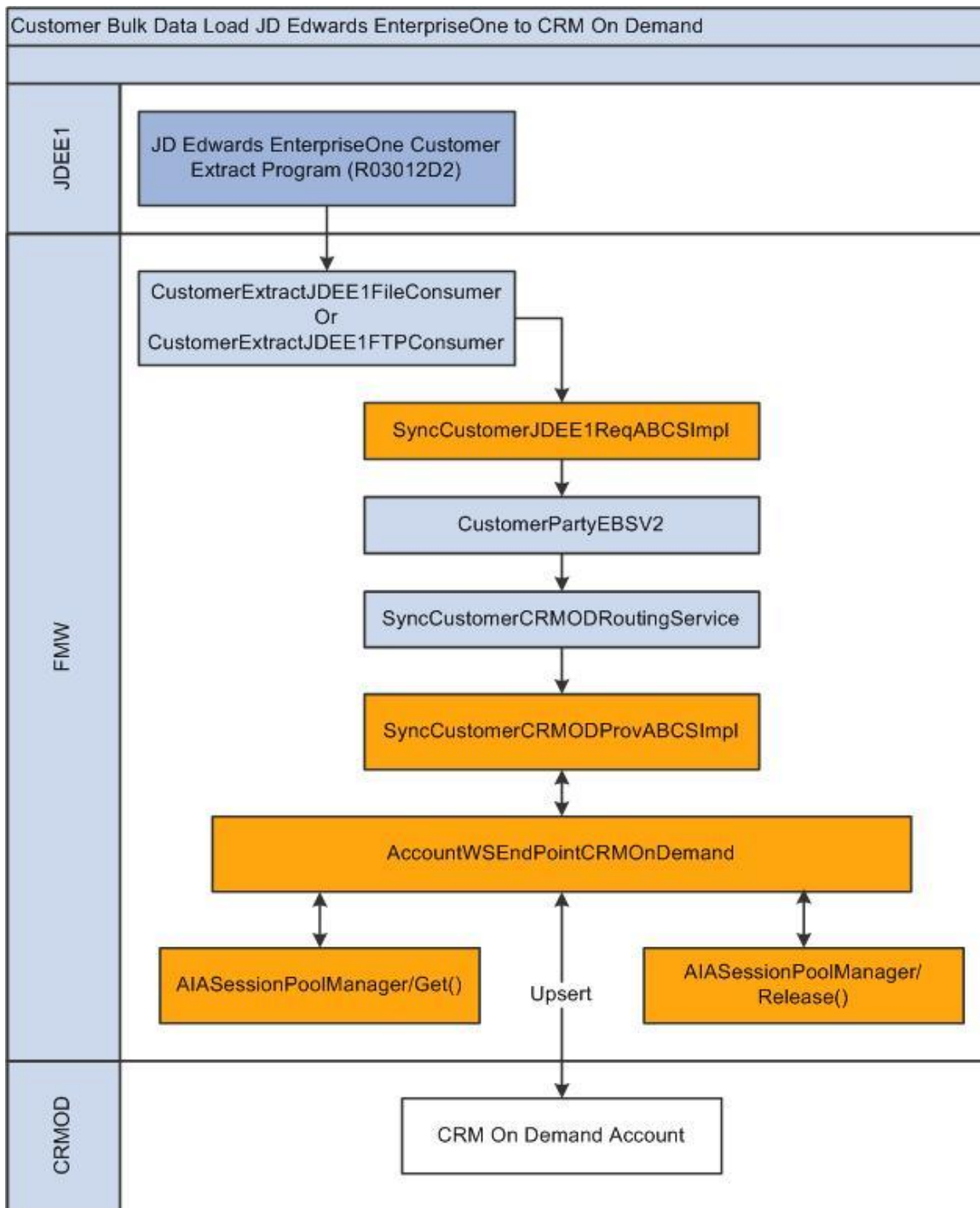
Important! You must specify a different location for each of the XML files that the R03012D2 creates. Do not send both of these files to the same location during processing because the first file needs to finish processing, and you must verify that it processed correctly, before the second file begins processing. If both files exist in the same location, the second file will begin processing immediately after the first file is finished.

You specify file locations in the processing options of the R03012D2.

The default data selection criterion for the extract program is set to include customer data that is associated with Company 00000.

You can also choose to run the contact data extract programs automatically when you run the R03012D2. You specify the version of the contact data extract programs in the processing options of the R03012D2. If you choose to run the contact data extracts, the data selection for the R03012D2 is set to include only those contacts associated with Who's Who table, Line 0.

This diagram illustrates the customer data load process:



Customer bulk load flow

Contact Data

In addition to extracting customer data, you can also choose to extract contact data. Contacts are the entities that are associated with a customer. These programs extract contact data from JD Edwards EnterpriseOne:

- Customer Who's Who Extract batch program (R0111D)
- Customer Alternate Address Extract batch program (R01161D)

The R0111D program can be run alone or can be called from the R03012D2 program. To run this program automatically during the customer data extract process, you specify which version of the R0111D program to run in the processing options of the R03012D2 program. When processed together, the data selection from the version of the R03012D2 program that you run is applied to the R0111D program so that only the contacts that are related to the set of selected customers are extracted.

Note: For the R0111D batch program to use the data selection from the R03012D2 program, you must save the data selection in the version. Any data selection that is applied during a single run (using the data selection check box during submission) is ignored by R0111D.

Also, R03012D2 and R0111D may be run independently based on processing option settings. When run separately, data selection is not reused. However, we recommend that you run these programs together. If you attempt to load contact information into CRM On Demand when the associated customer does not exist in CRM On Demand, the contact information is not updated in CRM On Demand.

The R01161D batch program cannot be run independently of the R0111D batch program because it is based on data that is extracted by R0111D.

The R0111D batch program extracts contact data to a .csv file. The extracted data includes:

- All of the who's who records from the F0111 table that meet the data selection criteria.
- One electronic address record from the F01151 table.
- Four phone number records (work, home, fax, and cellular) from the F0115 table.
- One alternate address record from the F01161 table.

If applicable, the R0111D batch program calls the R01161D batch program, which captures additional related alternate address records from the F01161 table. These records are extracted to a second .csv file.

You can upload the .csv files that are created using the extract programs into CRM On Demand using the existing CRM On Demand import functionality. Before you upload these files, you must manually manipulate the data in the following four columns, in one or both of the .csv files, so that the data in these fields matches the available values for the associated fields in CRM On Demand:

- Salutation Name
- Contact Type
- Gender

- Country

Country is present in both of the .csv files that are created by the extract process.

Note: Review the available values for these fields by viewing the pick lists for each field in CRM On Demand. As necessary, update the values in the .csv files so that they match accepted values in CRM On Demand.

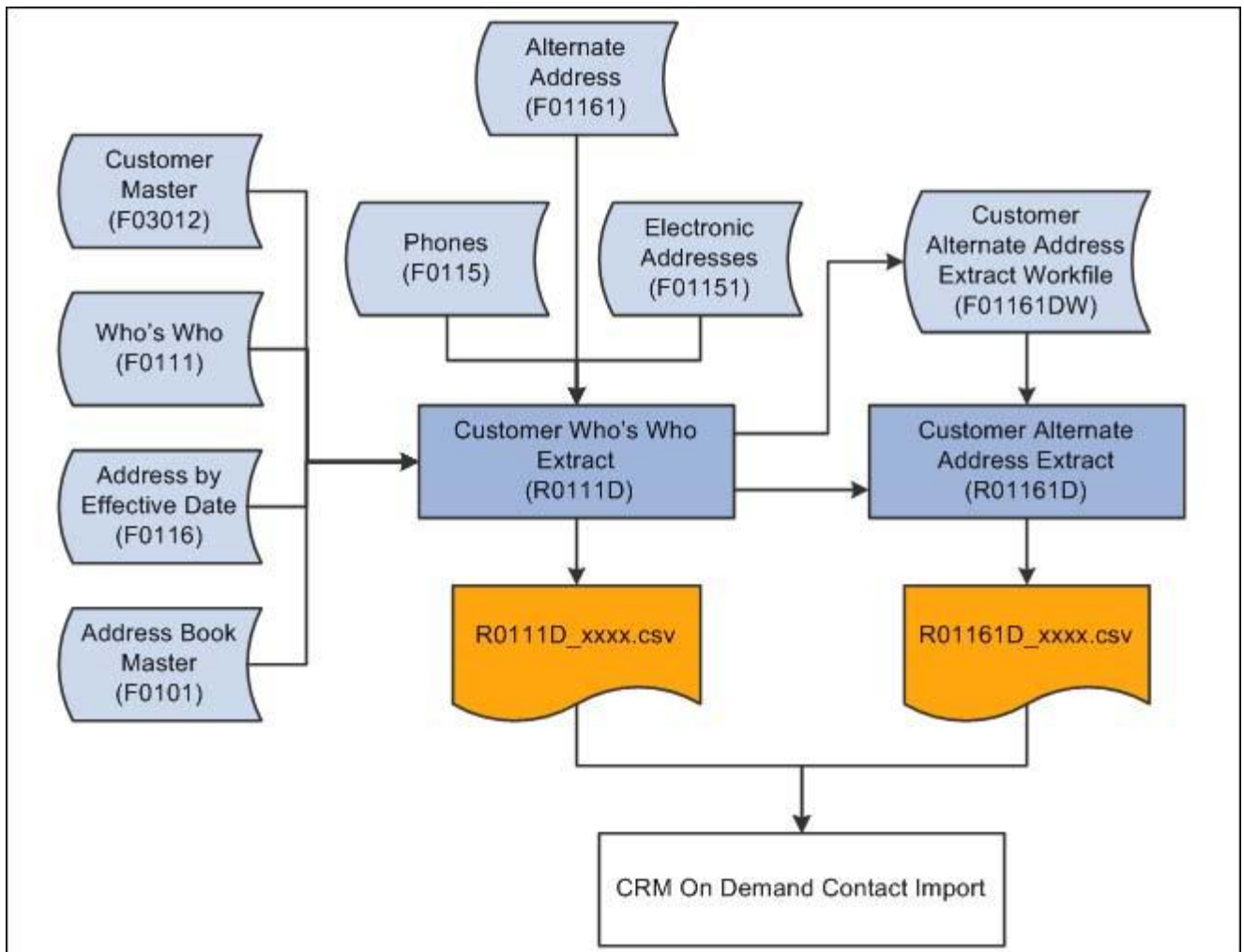
When the data in the .csv files is updated, you then use the standard CRM On Demand import functionality to import the contact data from the .csv file that was created by the R0111D extract program into CRM On Demand. The import functionality for contacts uses the External Unique ID field in CRM On Demand. This field corresponds to a composite key (CKEY) that is generated for each who's who record, which is a concatenation of E1, the address number, and the who's who line number. For example, E1-4242-1

Note: The OnDemand_Contact_Admin__Field_Mapping.map file may be used to facilitate the contact upload. The map file is located in the following directory: <AIA_HOME>\services\Core\CRMOD\UtilityServices\CRMODAddressUploadUtility.

To import that data that is created by the R01161D extract program, run the CRMIntegSEBLODAddressLoader.exe after you import the data from the contact .csv file. To run the utility, both the executable and configuration file must be in the same folder.

Note: Before you run this executable, verify that the configuration setting points to the correct server. This executable is delivered with the Lead to Order PIP, and it can be found at: <AIA_HOME> \services\Core\CRMOD\UtilityServices\CRMODAddressUploadUtility.

This diagram illustrates the contact data load process:



Contact data load process

Use this field mapping information to assist you in importing contact information:

CRM On Demand Field Name	JD Edwards EnterpriseOne Field Name
FirstName	GivenName
PersonalStreetAddress2	AddressLine2
LastName	Surname
PersonalState	State
PersonalStreetAddress3	AddressLine3
CellularPhone#	CellPhoneNumber
PersonalCountry	PostalCode

CRM On Demand Field Name	JD Edwards EnterpriseOne Field Name
PersonalCity	City
PersonalStreetAddress	AddressLine1
PersonalProvince	Province
FaxPhone#	WorkFaxNumber
WorkPhone#	WorkPhoneNumber
PersonalCountry	Country
EmailAddress	EmailAddress
HomePhone#	HomePhoneNumber
PrimaryAccountName	CustomerName

Important! Before importing contact data, you must verify that the customer data load completed successfully, and that the associated customer records exist in CRM On Demand. You cannot import contact records for which no corresponding customer record exists in CRM On Demand.

For more information, see *CRM On Demand Online Help Release 16*, “Contacts,” Importing Your Contacts.

Solution Assumptions and Constraints

The customer and contact data load process is based on these solution assumptions and constraints:

1. The extract programs do not include phone data for any related person entities that are associated with extracted customer or contact records.
2. Contact data synchronization is one-way, from JD Edwards EnterpriseOne to CRM On Demand.
3. The bulk loading and synchronization process that is described in this chapter is the only method for loading or synchronizing contact data between the two systems.
4. Limitations exist with the shipping and billing addresses.

For more information, see Chapter 3: Process Integration for Customer Management > Solution Assumptions and Constraints.

Bulk Loading and Synchronizing Customer and Contact Data

To complete the bulk data load or bulk synchronization process for customer and contact data, complete these steps:

1. In JD Edwards EnterpriseOne, set up versions of these data extract programs; setup includes defining data selection and processing options:
 - R03012D2
This program extracts customer data.
 - (Optional) R0111D
This program extracts contact data. You set up this program if you want to extract customer and contact data. Running this program is not required to complete the customer data load.
 - (Optional) R01161D
This program extracts related address information for contact data. You set up this program if you want to extract customer and contact data. Running this program is not required to complete the customer data load.
2. If you are using FTP, set up batch consumer information for CustomerExtractJDEE1FTPConsumer_ep.

Additionally, you must specify the location of the first XML file that is created by the R03012D2 in the PhysicalDirectory property of this service using the EM Console.
3. Run the R03012D2 program to create the XML data extract files.

If the process is successful, the system generates a PDF with a successful completion message.

Note: If you set up the R03012D2 program to process the contact extract programs, one or more .csv files containing customer data are also created during this step.

4. Verify the imported customer data from the first XML file in CRM On Demand.
5. Move the second XML file that is generated by the R03012D2 program into the same location where the first XML file was originally created.

Note: The system must completely upload the first XML file before you move the second XML file to this location.

If you are loading or synchronizing contact data, run the CRMIntegSEBLODAddressLoader.exe program, and update the data in the following four columns of the .csv files so that the data matches the available values for the associated fields in CRM On Demand:

- Salutation Name
- Contact Type

- Gender
- Country

6. Import your contacts into CRM On Demand.

For more information, see *CRM On Demand Online Help Release 16*, “Contacts,” Importing Your Contacts.

Loading and Synchronizing Product Data

This section provides an overview of product data load and synchronization, lists solution assumptions and constraints, and discusses how to bulk load and synchronize product data.

Understanding Product Data Load and Synchronization

Product data is stored in JD Edwards EnterpriseOne in the Item Master table (F4101). This piece of the process integration enables users to extract product (item) data from JD Edwards EnterpriseOne and load it into CRM On Demand. You can initially populate CRM On Demand with JD Edwards EnterpriseOne product data, and you can periodically bulk update, or synchronize product data between the two systems. This process is most commonly used to initially populate the product records in CRM On Demand with the item information from JD Edwards EnterpriseOne. However, it can also be used to do bulk synchronization of item data, or for subsequent batch loads that are associated with the purchase of a new organization or the start of a new line of business.

Users can select the items that are extracted from JD Edwards EnterpriseOne and loaded into CRM On Demand using selection criteria, which includes category codes.

To bulk extractor synchronize item records from JD Edwards EnterpriseOne, you must run the Item Extract batch program (R4101D2). This program creates an XML file, and if it completes successfully, a PDF with a successful completion message. The XML file is stored in a folder on the JD Edwards EnterpriseOne Enterprise Server. You specify the location of the folder in the processing options of the R4101D2 program.

After the files have been written to the Enterprise Server, one of these consumer services retrieves and debatches the XML files:

Composite: ItemExtractJDEE1Consumer

- ItemExtractJDEE1FTPConsumer_ep

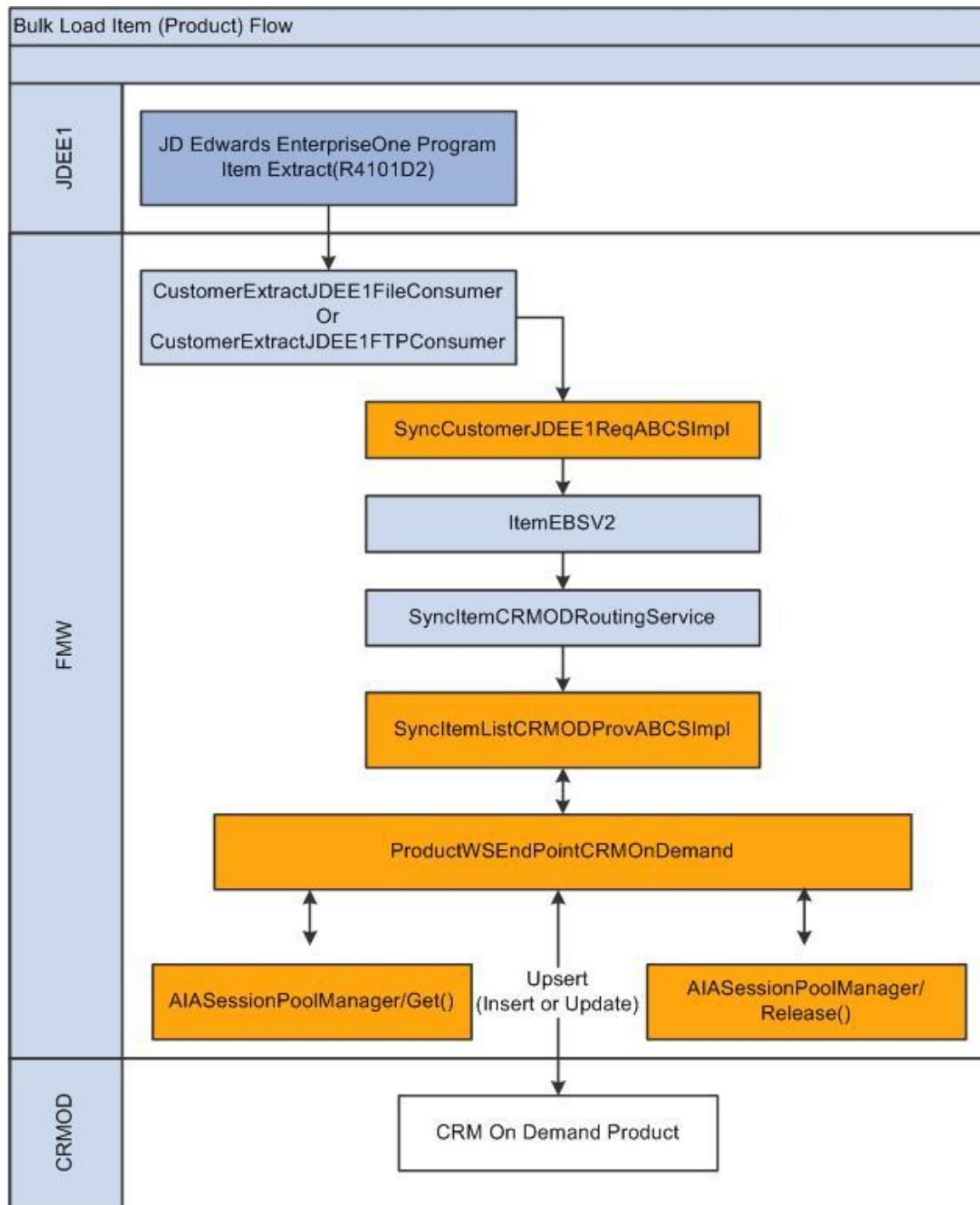
This consumer service is used when you configure the FTP adapter to locate files.

- ItemExtractJDEE1FileConsumer_ep

This consumer service is used when you move your files to the <AIA_HOME>/JDEE1_In folder on the WebLogic Server.

After the file has been written to the Enterprise Server, the appropriate consumer service retrieves and debatches the XML file. XML debatching allows the large XML file that the extract program creates to be split into several smaller XML files. The routing service then routes each individual XML file to the `SyncItemJDEE1ReqABCSImpl`. The messages are then passed to the `ItemEBSV2`, which sends the messages to the `SyncItemCRMODRoutingService`. The routing service then sends the message to the `SyncItemListCRMODProvABCSImpl`, which calls the `ProductWSEndpointCRMONDemand` utility. The utility establishes a session with CRM On Demand and calls the `ProductWS_ProductUpsert` web service, and the records are inserted or updated in CRM On Demand.

This diagram illustrates the product bulk data load process:



Product data load flow

Solution Assumptions and Constraints

This process integration:

1. Does not support kit or configured items.

Note: You can set up routing rules to filter kit and configured items from being synchronized to CRM On Demand.

2. Does not support branch or plant item information.

Bulk Loading and Synchronizing Product Data

To complete the bulk data load or bulk synchronization process for product data, complete these steps:

1. In JD Edwards EnterpriseOne, set up a version of the R4101D2 program, including processing options and data selection.
2. If you are using FTP, set up batch consumer information for ItemExtractJDEE1FTPCConsumer.
3. Enter the file location in the PhysicalDirectory property of the consumer service using EM Console.
4. Run the R4101D2 program to create the data extract file.

If the process is successful, the system generates a PDF with a successful processing message.

5. Verify the imported product data in CRM On Demand.

Chapter 3: Process Integration for Customer Management

This chapter provides an overview of the process integration for customer management and discusses:

- Creating customer in JD Edwards EnterpriseOne and synchronize to CRM On Demand
- Updating customer in JD Edwards EnterpriseOne and synchronize to CRM On Demand
- Deleting customer in JD Edwards EnterpriseOne and synchronize to CRM On Demand
- Viewing JD Edwards EnterpriseOne customers from CRM On Demand
- Creating customer in CRM On Demand and synchronize to JD Edwards EnterpriseOne
- Updating customer in CRM On Demand and synchronize to JD Edwards EnterpriseOne
- Deleting customer in CRM On Demand and synchronize to JD Edwards EnterpriseOne
- Core Application Integration Architecture (AIA) components
- Integration services

Overview

The process integration for customer management between JD Edwards EnterpriseOne and CRM On Demand supports the following integration flows:

- Load and synchronize groups of customer accounts and contact data from JD Edwards EnterpriseOne to CRM On Demand.

This flow, also known as bulk loading, enables the extract, transformation, and load or synchronization of customer data from JD Edwards EnterpriseOne to CRM On Demand. This flow uses JD Edwards Enterprise One batch programs to extract relevant customer and contact data from JD Edwards EnterpriseOne, and it loads the data to the appropriate CRM On Demand tables.

For more information, see Chapter 2: Bulk Data Loads and Synchronization.

- Create customer data in JD Edwards EnterpriseOne and synchronize to CRM On Demand.

This flow enables you to create a customer in JD Edwards EnterpriseOne and synchronize the new customer to CRM On Demand. This flow uses an EnterpriseOne realtime event (RTE) to notify the system that a new customer has been created.

- Update customer data in JD Edwards EnterpriseOne and synchronize to CRM On Demand.

This flow enables you to update customer information in JD Edwards EnterpriseOne and synchronize those changes to an existing account in CRM On Demand. This flow uses RTEs to notify the system that an update has occurred.

- Delete customer data in JD Edwards EnterpriseOne and synchronize to CRM On Demand.

This flow enables you to delete a customer record from the JD Edwards EnterpriseOne database and synchronize that change so that the corresponding account record in CRM On Demand is updated with the Integration Status of OFF and all corresponding cross-reference records are deleted. This flow uses RTEs to notify the system that an update has occurred.

Note: This process does not override any logic or rules in CRM On Demand that would prohibit the deletion of a customer account record.

- View JD Edwards EnterpriseOne customers from CRM On Demand.

This process enables you to view JD Edwards EnterpriseOne customer records from CRM On Demand. This process uses a parameterized URL to access the Customer application (P90CA080) in JD Edwards EnterpriseOne.

- Create customer data in CRM On Demand and synchronize to JD Edwards EnterpriseOne.

This flow enables you to create an account in CRM On Demand and synchronize that data to JD Edwards EnterpriseOne, creating a new customer record in the EnterpriseOne database. This flow uses CRM On Demand Integration Events to notify the system that an update has occurred.

- Update customer data in CRM On Demand and synchronize to JD Edwards EnterpriseOne.

This flow enables you to update account information in CRM On Demand, and synchronize the changes to an existing customer record in the EnterpriseOne database. This flow uses CRM On Demand Integration Events to notify the system that an update has occurred.

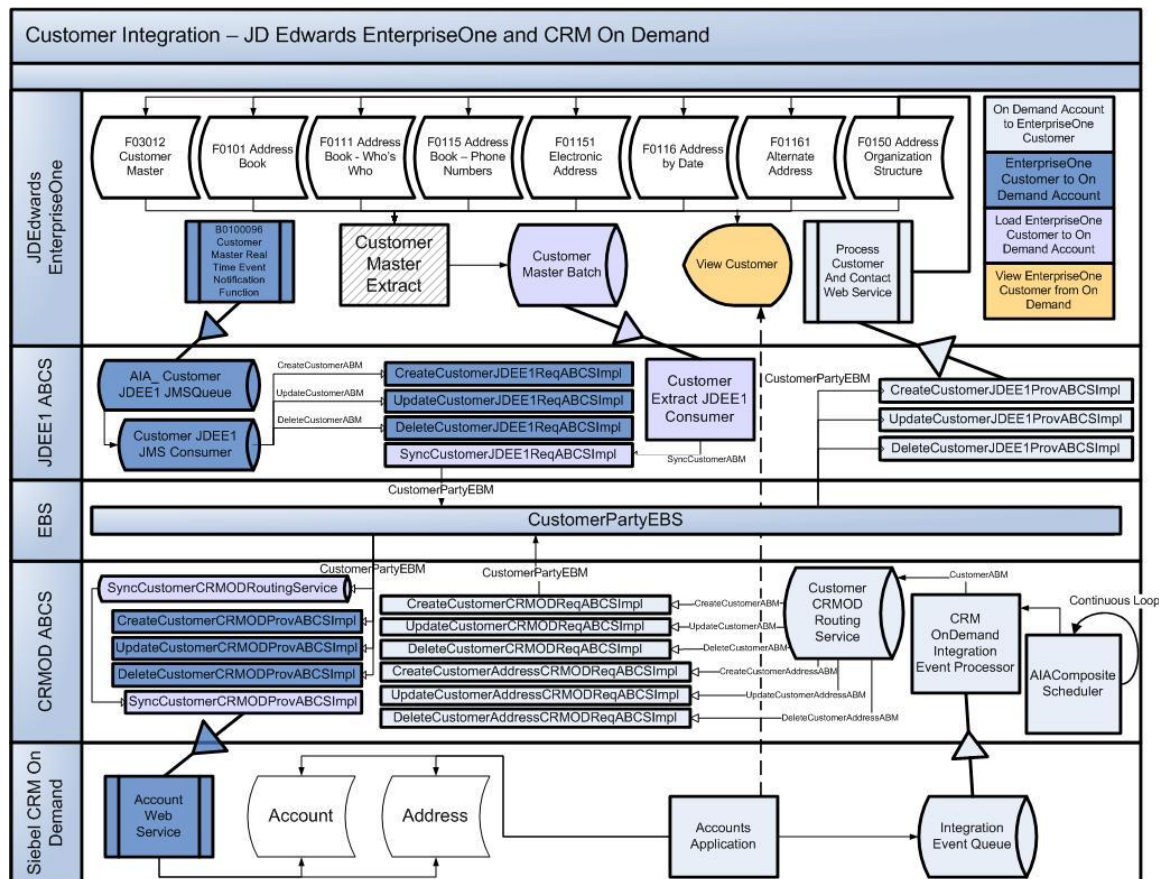
- Delete customer data in CRM On Demand and synchronize to JD Edwards EnterpriseOne.

This flow enables you to delete an account from CRM On Demand and synchronize that change so that the corresponding customer record is deleted from the EnterpriseOne database. This flow uses CRM On Demand Integration Events to notify the system that an update has occurred.

Note: This process does not override any logic or rules in JD Edwards EnterpriseOne that would prohibit the deletion of a customer account record.

For more information about error handling during the customer process, see Chapter 6: Configuring the Lead to Order PIP > Handling Errors.

This diagram illustrates the customer management process integration:



Customer management process integration

Solution Assumptions and Constraints

These are the assumptions and constraints for the customer integration process:

1. The ability to merge accounts within CRM On Demand is not allowed for accounts that are synchronized to JD Edwards EnterpriseOne, because JD Edwards EnterpriseOne does not allow accounts to be merged.
2. Contact information is not synchronized bidirectional between JD Edwards EnterpriseOne and CRM On Demand.

Contact information can be bulk loaded and bulk synchronized from JD Edwards EnterpriseOne to CRM On Demand. Once a contact exists in CRM On Demand, maintenance of that record is typically completed within CRM On Demand.

3. If you synchronize contact records that already exist in CRM On Demand, you can set an option during the import process to determine whether the system overwrites the data in CRM On Demand with the imported data from JD Edwards EnterpriseOne.

Verify this setting before running the import process to ensure that you do not lose data.

4. The integration is limited in the support of customers by line of business.

In JD Edwards EnterpriseOne, the same customer can exist in different lines of business. CRM On Demand does allow the same customer to exist in different lines of business. When you synchronize customer data from JD Edwards to EnterpriseOne, all of the customer records, for each line of business, are published. However, CRM On Demand consumes only one of these customer records. CRM On Demand consumes the default line of business, which is JD Edwards EnterpriseOne Company 00000. The user can specify the line of business that CRM On Demand consumes *except* during synchronization. The synchronization process publishes only one line of business.

5. For the Lead to Order PIP, CRM On Demand recognizes an account record as a customer only when the Integration Status is set to Sync ON.

CRM On Demand does not use the value in the Account Type field to determine whether to synchronize account data to JD Edwards EnterpriseOne.

Therefore, if the Integration Status is set to Sync ON, then the system publishes any changes that are made to the account to the CustomerPartyEBM.

6. Limitations with the shipping and billing address data for customers exist; they are described in detail in the following section.

Limitations with Shipping and Billing Addresses

The CRM On Demand and JD Edwards EnterpriseOne systems handle customer shipping and billing address information differently. Because of these differences, some constraints and limitations exist regarding how this data is processed and shared between the systems.

CRM On Demand creates one customer account record and stores both the billing and shipping addresses on that account record. In JD Edwards EnterpriseOne, the complexity of the additional back office processing requires that the system store the billing customer and the shipping customer as two separate records. Each of these customer records has a main address. The Billing Address Type field on the customer record determines whether this is a billing address, shipping address, or both. If applicable, these records can also be related to each other.

To accommodate these differences, you must create a new field, Customer Type, in CRM On Demand and add it to the Account page. This field is the CRM On Demand equivalent of the Customer Billing Type field in JD Edwards EnterpriseOne. Values for the Customer Type field can be:

- B: Billing Only Customer
- S: Shipping Only Customer
- X: Billing and Shipping Customer

The Customer Type field in the EBM element is CustomerParty.TypeCode.

The Customer Type field is used to determine how customer address information is synchronized between the two systems. When synchronizing data to CRM On Demand from EnterpriseOne, the system uses the value in this field to determine how to update the two CRM On Demand addresses from the single JD Edwards EnterpriseOne address. When synchronizing from CRM On Demand to EnterpriseOne, the system uses this value to determine how to update the two addresses from CRM On Demand to the single address, either billing or shipping, in the EnterpriseOne system.

When you create a customer account in CRM On Demand:

- If the customer type is X or B, the billing address will be mapped to the main address in the JD Edwards EnterpriseOne customer record.

The cross-reference record is related to the billing address.

- If the customer type is S, the shipping address will be mapped to the main address in the JD Edwards EnterpriseOne customer record.

The cross-reference record is related to the shipping address.

When you create a customer in JD Edwards EnterpriseOne:

- If the customer billing type is X, the address will be mapped to both the billing and shipping address in CRM On Demand.

The cross-reference record is related only to the billing address.

- If the customer billing type is B, the address will be mapped to the billing address in CRM On Demand.

The cross-reference record is related to the billing address.

- If the customer billing type is S, the address will be mapped to the shipping address in CRM On Demand.

The cross-reference record will be related to the shipping address.

Limitations exist in either system when you change the customer type from X or B to S for a customer that is set up to synchronize between the two systems. To ensure that the address information is updated correctly in both systems when making this type of change, the user must complete these steps in the order specified:

1. Delete the main address information for the customer in both systems.
2. Change the customer type.
3. Verify and update the address information in both systems.

Note: These limitations apply only to customer/account primary addresses, not to additional or other addresses that are related to the customer. Both systems store many additional addresses for each customer record.

However, for alternate addresses entered in CRM On Demand, the Lead to Order PIP attempts to use the values from the description field to translate the address type using the domain value maps (DVMs). Therefore, because this PIP uses B*, S*, and X* as the values for Billing Only, Shipping Only, and Billing and Shipping, you should not enter these values into the description field.

Creating Customer in JD Edwards EnterpriseOne and Synchronizing to CRM On Demand

The create customer integration flow is initiated in JD Edwards EnterpriseOne when a new customer record is added to the database.

This is the business process for creating customers in JD Edwards EnterpriseOne and synchronizing to CRM On Demand:

- When a new customer record is created in JD Edwards EnterpriseOne and committed to the database, CRM On Demand must be informed.

Note: This event is published only if the JD Edwards EnterpriseOne RTE RTCMOUT2 is activated.

- The creation of a new JD Edwards EnterpriseOne customer results in the creation of a new customer account in CRM On Demand.

The address that is associated with this new customer account record is determined by the customer type that is specified in the JD Edwards EnterpriseOne customer record.

- Contact records that are associated with the customer can also be created in CRM On Demand by running the bulk load process.

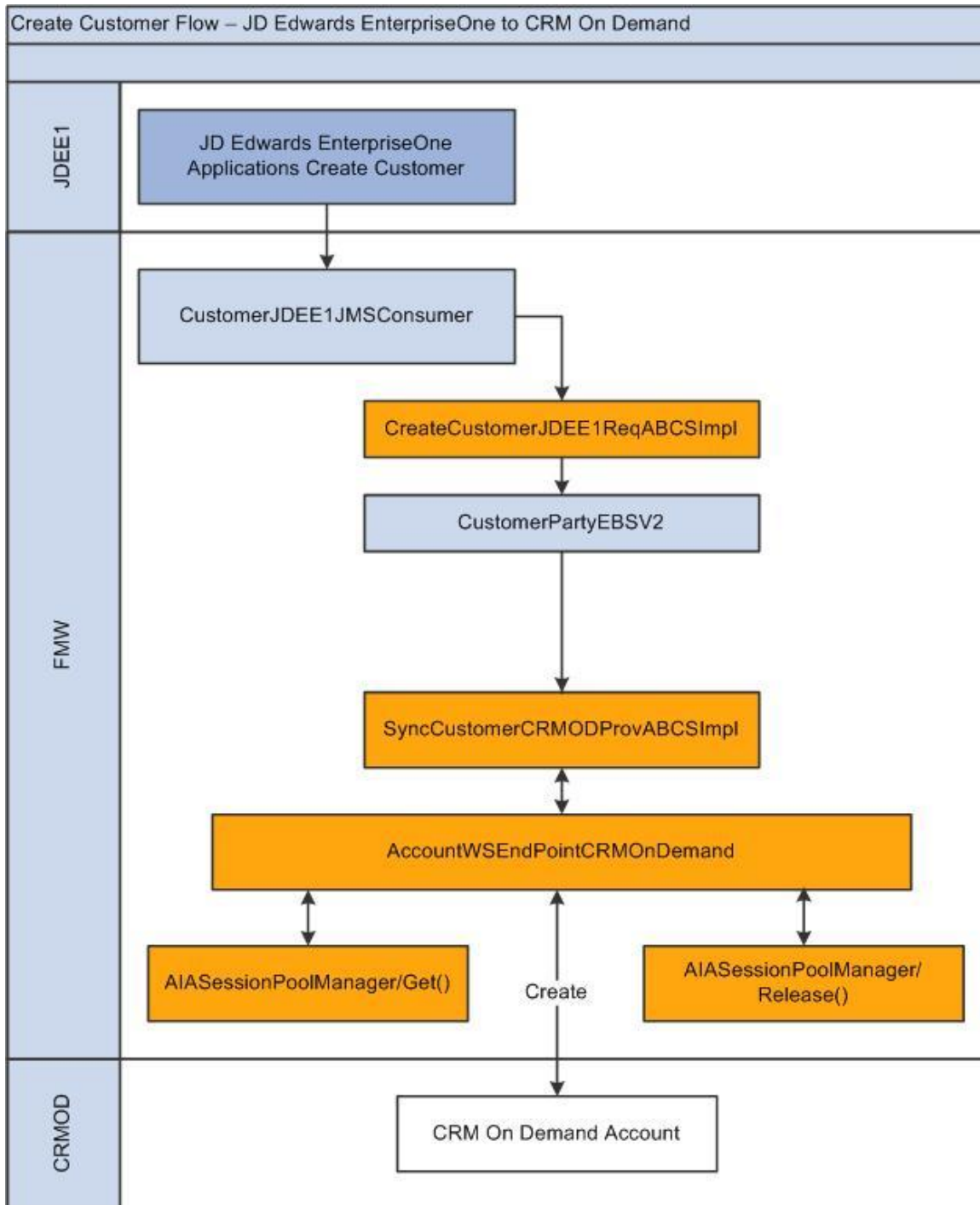
For more information, see Chapter 2: Bulk Data Loads and Synchronization > Loading and Synchronizing Customer and Contact Data > Understanding Customer and Contact Data Load and Synchronization.

Interfaces

This integration flow uses these interfaces:

- JD Edwards EnterpriseOne RTE RTCMOUT2
- CustomerJDEE1JMSConsumer
- CreateCustomerJDEE1ReqABCImpl
- CustomerPartyEBSV2
- CreateCustomerCRMODProvABCImpl
- AccountWSEndpointCRMOnDemand
- CRM On Demand web service AccountWS_AccountInsert

This diagram illustrates the create customer from JD Edwards EnterpriseOne to CRM On Demand flow:



Create customer from JD Edwards EnterpriseOne to CRM On Demand process flow

Program Logic

When you initiate the create customer process from JD Edwards EnterpriseOne, these events occur:

1. When you create a new customer record in JD Edwards EnterpriseOne, the RTE RTCMOUT2 is triggered.
2. RTCMOUT2 writes the newly created customer record to the F90710 table.
3. The transaction server in JD Edwards EnterpriseOne receives the application business message (ABM) CreateCustomerJDEE1ABM and writes it to the AIA_CustomerJDEE1JMSQ queue.
4. The consumer, CustomerJDEE1JMSConsumer, picks up the ABM and routes it to the appropriate application business connector service (ABCS), in this case, the CreateCustomerJDEE1ReqABCSImpl.
5. The CreateCustomerJDEE1ReqABCSImpl transforms the CreateCustomerJDEE1ABM into the common message format of an enterprise business message (EBM), in this case, the CreateCustomerPartyEBM.

The CreateCustomerJDEE1ReqABCSImpl also creates the EnterpriseOne side of the necessary cross-reference records.

6. The EBM is then sent to the enterprise business service (EBS) CustomerPartyEBSV2.
7. The CustomerPartyEBSV2 routes the EBM to the CRM On Demand ABCS, in this case, the CreateCustomerCRMODProvABCSImpl.
8. The CreateCustomerCRMODProvABCSImpl transforms the EBM into a CRM On Demand ABM format.
9. The ABM is then routed to the utility AccountWSEndpointCRMONDemand. AIASessionPoolManager/Get() and AIASessionPoolManager/Release() are called by the AccountWSEndpointCRMONDemand around the web services call to establish a secure session.

The utility then transforms the ABM into an input message and calls the CRM On Demand web service AccountWS_AccountInsert to insert the record into the CRM On Demand database.

10. The AccountWS_AccountInsert web service returns the newly created account ID to the AccountWSEndpointCRMONDemand utility, which sends the account ID to the CreateCustomerCRMODProvABCSImpl.
11. TheCreateCustomerCRMODProvABCSImpl updates the CRM On Demand side of the cross-reference record with the account ID.

Updating Customer in JD Edwards EnterpriseOne and Synchronizing to CRM On Demand

The update customer integration flow is initiated in JD Edwards EnterpriseOne when an existing customer record is changed in the database.

This is the business process for updating a customer in JD Edwards EnterpriseOne and synchronizing to CRM On Demand:

- When you update an existing customer record in JD Edwards EnterpriseOne and commit it to the database, CRM On Demand must be informed.

Note: This event is published only if JD Edwards EnterpriseOne RTE RTCMOUT2 is activated.

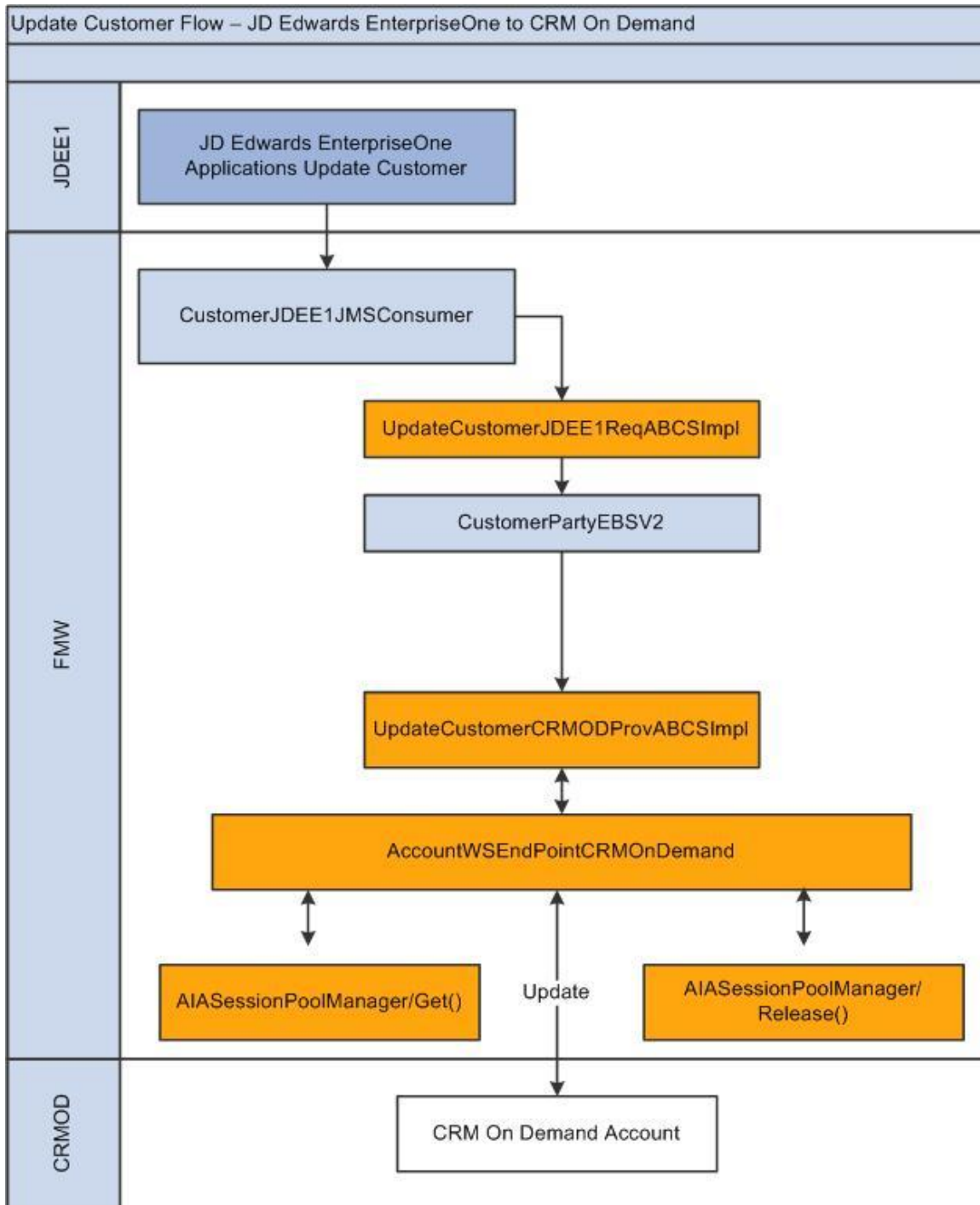
- The update to the JD Edwards EnterpriseOne customer results in the update of the existing customer account in CRM On Demand.

Interfaces

This integration flow uses these interfaces:

- JD Edwards EnterpriseOne RTE RTCMOUT2
- CustomerJDEE1JMSConsumer
- UpdateCustomerJDEE1ReqABCImpl
- CustomerPartyEBSV2
- UpdateCustomerCRMODProvABCImpl
- AccountWSEndpointCRMOnDemand
- CRM On Demand web service AccountWS_AccountUpdate

This diagram illustrates the update customer from JD Edwards EnterpriseOne to CRM On Demand flow:



Update customer from JD Edwards EnterpriseOne to CRM On Demand process flow

Program Logic

When you initiate the update customer process from JD Edwards EnterpriseOne, these events occur:

1. When you update an existing customer record in JD Edwards EnterpriseOne, the RTE RTCMOUT2 is triggered.
2. RTCMOUT2 writes the updated customer record to the F90710 table.
3. The transaction server in JD Edwards EnterpriseOne receives the ABM UpdateCustomerJDEE1ABM and writes it to the AIA_CustomerJDEE1JMSQ queue.
4. The consumer, CustomerJDEE1JMSConsumer, picks up the ABM and routes it to the appropriate ABCS, in this case, the UpdateCustomerJDEE1ReqABCSImpl.
5. The UpdateCustomerJDEE1ReqABCSImpl transforms the UpdateCustomerJDEE1ABM into the common message format of an EBM, in this case, the UpdateCustomerPartyEBM.
6. The UpdateCustomerJDEE1ReqABCSImpl also updates the EnterpriseOne side of the necessary cross-reference records, if needed.
7. The EBM is then sent to the EBS CustomerPartyEBSV2.
8. The CustomerPartyEBSV2 routes the EBM to the CRM On Demand ABCS, in this case, the UpdateCustomerCRMODProvABCSImpl.
9. The UpdateCustomerCRMODProvABCSImpl transforms the EBM into a CRM On Demand ABM format.
10. The ABM is then routed to the utility AccountWSEndpointCRMONDemand. AIASessionPoolManager/Get() and AIASessionPoolManager/Release() are called by the AccountWSEndpointCRMONDemand around the web services call to establish a secure session.

The utility then transforms the ABM into an input message and calls the CRM On Demand web service AccountWS_AccountUpdate to update the record into the CRM On Demand database.
11. The AccountWS_AccountUpdate web service returns the updated account ID to the AccountWSEndpointCRMONDemand utility, which sends the account ID to the UpdateCustomerCRMODProvABCSImpl.
12. The UpdateCustomerCRMODProvABCSImpl updates the CRM On Demand side of the cross-reference record for the account ID, if needed.

Deleting Customer in JD Edwards EnterpriseOne and Synchronizing to CRM On Demand

The delete customer integration flow is initiated in JD Edwards EnterpriseOne when an existing customer record is deleted from the database.

This is the business process for deleting a customer from JD Edwards EnterpriseOne and synchronizing to CRM On Demand:

When an existing customer record is deleted from the JD Edwards EnterpriseOne database, CRM On Demand must be informed.

Note: This event is published only if JD Edwards EnterpriseOne RTE RTCMOUT2 is activated.

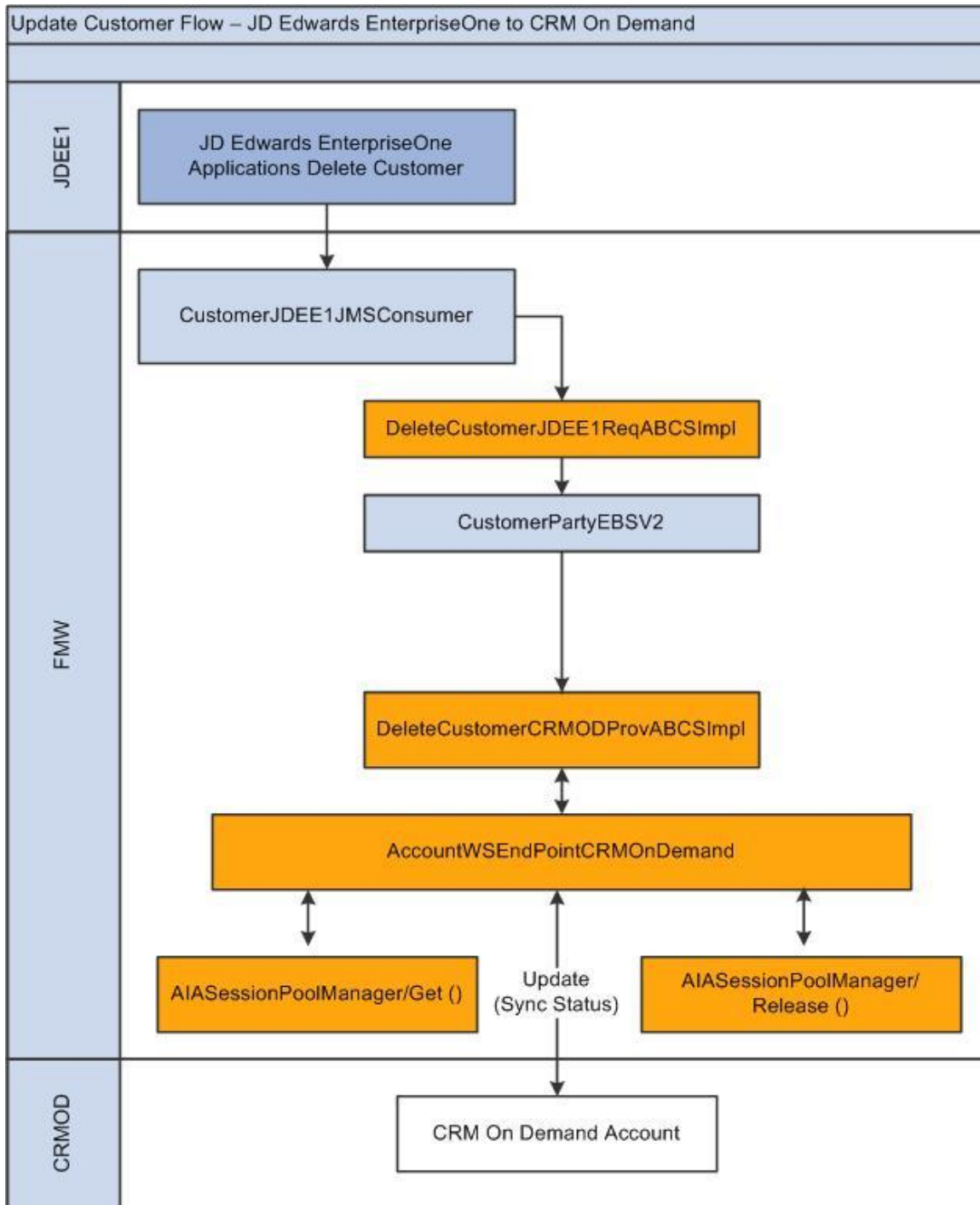
The deletion of the customer record from JD Edwards EnterpriseOne initiates a process that attempts to change the value in the Integration Status field to Sync OFF for the corresponding customer account record in CRM On Demand. If the update is successful, the associated cross-reference records are then deleted.

Interfaces

This integration flow uses these interfaces:

- JD Edwards EnterpriseOne RTE RTCMOUT2
- CustomerJDEE1JMSConsumer
- DeleteCustomerJDEE1ReqABCImpl
- CustomerPartyEBSV2
- DeleteCustomerCRMODProvABCImpl
- AccountWSEndpointCRMDemand
- CRM On Demand web service AccountWS_AccountDelete

This diagram illustrates the delete customer from JD Edwards EnterpriseOne to CRM On Demand flow:



Delete customer from JD Edwards EnterpriseOne to CRM On Demand process flow

Program Logic

When you initiate the delete customer process from JD Edwards EnterpriseOne, these events occur:

1. When you delete an existing customer record in JD Edwards EnterpriseOne, the RTE RTCMOUT2 is triggered.
2. RTCMOUT2 writes the deleted customer record to the F90710 table.
3. The transaction server in JD Edwards EnterpriseOne receives the ABM DeleteCustomerJDEE1ABM and writes it to the AIA_CustomerJDEE1JMSQ queue.
4. The consumer, CustomerJDEE1JMSConsumer, picks up the ABM and routes it to the appropriate ABCS, in this case, the DeleteCustomerJDEE1ReqABCSImpl.
The DeleteCustomerJDEE1ReqABCSImpl transforms the DeleteCustomerJDEE1ABM into the common message format of an EBM, in this case, the DeleteCustomerPartyEBM.
5. The DeleteCustomerJDEE1ReqABCSImpl also updates the EnterpriseOne side of the necessary cross-reference records, if needed.
6. The EBM is then sent to the EBS CustomerPartyEBSV2.
7. The CustomerPartyEBSV2 routes the EBM to the CRM On Demand ABCS, in this case, the DeleteCustomerCRMODProvABCSImpl.
8. The DeleteCustomerCRMODProvABCSImpl transforms the EBM into a CRM On Demand ABM format.
9. The ABM is then routed to the utility AccountWSEndpointCRMOnDemand. AIASessionPoolManager/Get() and AIASessionPoolManager/Release() are called by the AccountWSEndpointCRMOnDemand around the web services call to establish a secure session.
The utility then transforms the ABM into an input message and calls the CRM On Demand web service AccountWS_AccountUpdate to update the record in the CRM On Demand database with an Integration Status of Sync OFF.
10. The AccountWS_AccountDelete web service returns the updated account ID to the AccountWSEndpointCRMOnDemand utility, which sends the account ID to the DeleteCustomerCRMODProvABCSImpl.
11. The DeleteCustomerCRMODProvABCSImpl deletes the cross-reference records for the account ID.

Viewing JD Edwards EnterpriseOne Customers from CRM On Demand

The Lead to Order PIP enables users to view the JD Edwards customer records directly from CRM On Demand using web links and custom tabs that you define in CRM On Demand. You set up web links with context-sensitive parameters that enable an administrator to define:

- The application, form, and version to launch.
- The data to pass to JD Edwards EnterpriseOne.

For the Lead to Order business process, an administrator can configure a link that launches the Customer application (P90CA080) with certain fields, such as the customer's address book number prepopulated in the Manage Customer form.

When a user opens the Customer application, it can appear in a new browser window, within the current window, or in a custom tab. The instructions included in this documentation specify how to display the application in a new browser window.

The process flow for accessing the P90CA080 application from CRM On Demand includes these steps:

1. The administrator creates a link in CRM On Demand to access the JD Edwards EnterpriseOne Customer application.
2. From CRM On Demand, the user clicks the web link that has been set up to access the JD Edwards EnterpriseOne application P90CA080.
3. The system opens a custom tab or new browser, depending on the setup of the web link, to display the JD Edwards EnterpriseOne application.
4. Upon the first invocation of an EnterpriseOne application, the user is required to log in to a valid JD Edwards EnterpriseOne environment.

Upon subsequent invocations, the user sign-in information is cached, and no additional sign-in is required.

5. The P90CA080 application is launched, enabling users to review customer records directly in JD Edwards EnterpriseOne.

The controls for the application are preloaded, based on the form data that is passed through the URL (address number and customer name). The user has access to all of the tabs, links, and fields in this application, just as if he or she had accessed the application directly from the EnterpriseOne system.

6. The user finishes viewing the customer record and clicks the Close button in the P90CA080 application.

The application closes and the browser is redirected to the URL target destination, as specified in the parameterized URL request.

Before you can access the P90CA080 from CRM On Demand, you must set up the web link for customer integration.

For more information about setting up fields, tabs, and layouts in CRM On Demand, see *CRM On Demand Online Help Release 16*, "Administering Siebel CRM On Demand."

For more information about using the JD Edwards EnterpriseOne Customer application, see *JD Edwards EnterpriseOne Customer Relationship Management Application Fundamentals Implementation Guide*, "Managing Customers" and Chapter 6: Configuring the Lead to Order PIP > Creating Web Links in CRM On Demand.

Creating Customers in CRM On Demand and Synchronizing to JD Edwards EnterpriseOne

The create customer integration flow is initiated in CRM On Demand when a new customer account is entered into the database.

This is the business process for creating a customer in CRM On Demand and synchronizing to JD Edwards EnterpriseOne:

- When a new customer account record is created in CRM On Demand, JD Edwards EnterpriseOne must be informed.

Note: This event is published only if the Integration Status is set to Sync ON.

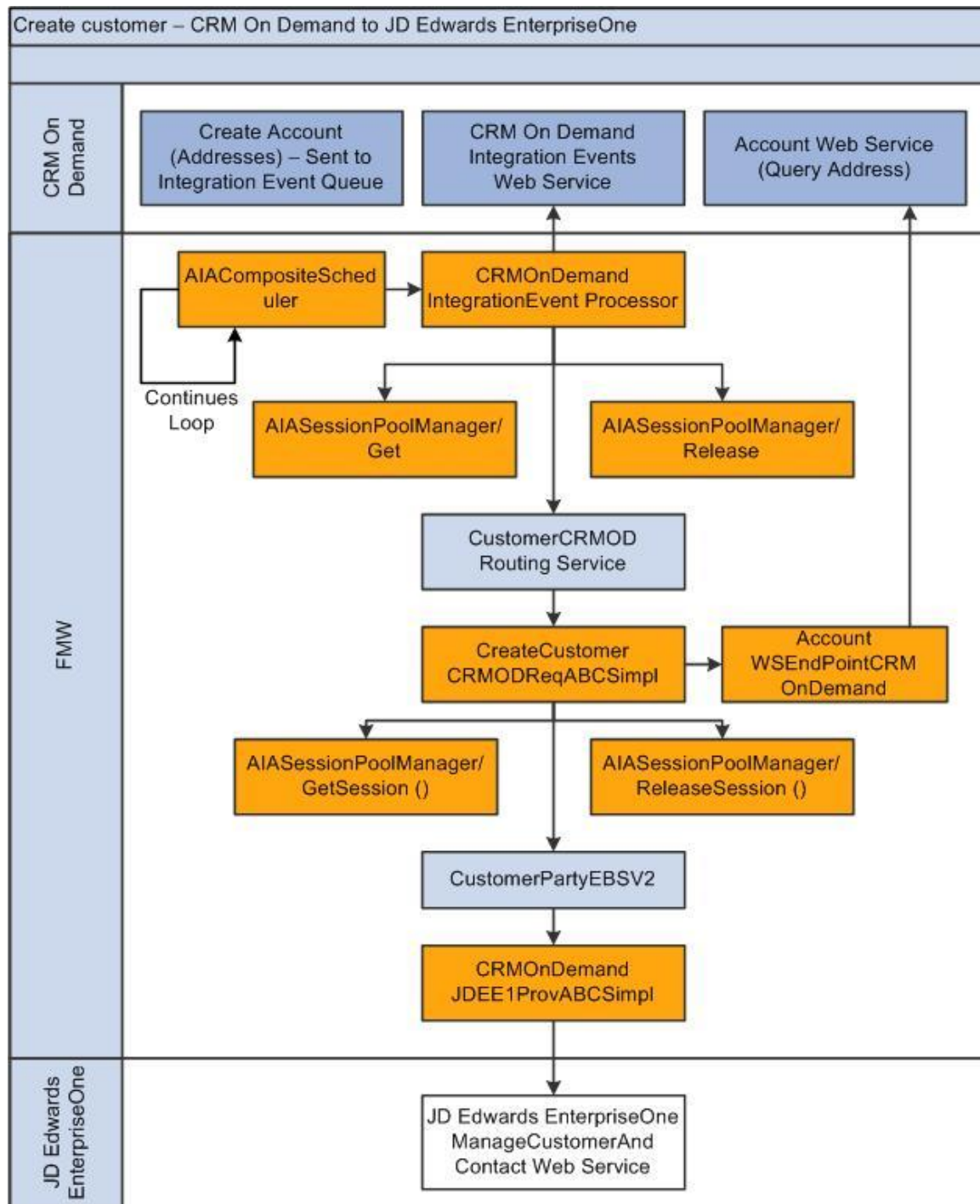
- The creation of a new CRM On Demand customer account results in the creation of a new customer record, or records, in JD Edwards EnterpriseOne.
- Contact records that are created in CRM On Demand and that are associated with the newly created customer account are not synchronized to JD Edwards EnterpriseOne.

Interfaces

This integration flow uses these interfaces:

- CRM On Demand Integration Event Create Account
- CRMOD Customer Consumer
- CreateCustomerCRMODReqABCImpl
- CustomerPartyEBSV2
- CreateCustomerJDEE1ProvABCImpl
- JD Edwards EnterpriseOne published business service CustomerAndContactManager
- JD Edwards EnterpriseOne web service processCustomerAndContact

This diagram illustrates the create customer in CRM On Demand and synchronize to JD Edwards EnterpriseOne flow:



Create customer in CRM On Demand and sync to JD Edwards EnterpriseOne process flow

Program Logic

When you initiate the create customer process from CRM On Demand, these events occur:

1. If the Integration Status flag is set to ON, when an account is created in CRM On Demand, the integration event Create Account sends the account data to the CRM On Demand Integration Event queue.
2. When AIACompositeScheduler is triggered, the system calls the IntegrationEventProcessor.

Note: AIACompositeScheduler is scheduled to automatically trigger at predefined intervals, such as 30-second intervals. However, you can change this interval, if necessary. See [Modifying AIACompositeScheduler](#).

3. The IntegrationEventProcessor retrieves the message from the Integration Event queue and routes the ABM Create Account CRMOD ABM to the AIA_CustomerCRMODJMSQ queue.

The IntegrationEventProcessor then deletes the event from the Integration Event queue.

4. The consumer, CustomerCRMODRoutingService, picks up the ABM and routes it to the appropriate ABCS, in this case, the CreateCustomerCRMODReqABCImpl.
5. The CreateCustomerCRMODReqABCImpl transforms the Create Account CRMOD ABM into the common message format of an EBM, in this case, the CreateCustomerPartyEBM. The CreateCustomerCRMODReqABCImpl also creates the CRM On Demand side of the necessary cross-reference records.
6. The CreateCustomerPartyEBM is then sent to the EBSCustomerPartyEBSV2.
7. The CustomerPartyEBSV2 routes the CreateCustomerPartyEBM to the JD Edwards EnterpriseOne ABCS, in this case, the CreateCustomerJDEE1ProvABCImpl.
8. The CreateCustomerJDEE1ProvABCImpl transforms the CreateCustomerPartyEBM into the processCustomerAndContactABM.

Note: These steps assume that the ABM is in WebLogic (WLS) format. If you are using the IBM Websphere Application Server (WAS), a connector BPEL flow, CustomerJDEE1WASConnector, is called to transform the ABM from WLS to WAS format.

9. Oracle Web Services Manager (OWSM) intercepts the message and inserts into the ABM the JD Edwards EnterpriseOne security sign-in information.
10. The CreateCustomerJDEE1ProvABCImpl routes the processCustomerAndContactABM to the CustomerAndContactManager public web service.
11. The CustomerAndContactManager Web service calls the necessary JD Edwards EnterpriseOne business functions to insert the newly created customer record into the JD Edwards EnterpriseOne database.
12. The web service returns the newly created address book number to the CreateCustomerJDEE1ProvABCImpl.

Note: If WAS is enabled, the web service returns the response to the CustomerJDEE1WASConnector, which transforms the response from WAS to WLS format before calling the CreateCustomerJDEE1ProvABCImpl.

13. CreateCustomerJDEE1ProvABCSEImpl updates the JD Edwards EnterpriseOne side of the cross-reference record with the address book number.

Updating Customers in CRM On Demand and Synchronizing to JD Edwards EnterpriseOne

The update customer integration flow is initiated in CRM On Demand when an existing customer account is updated.

This is the business process for updating a customer account in CRM On Demand and synchronizing to JD Edwards EnterpriseOne:

- When an existing customer account record is updated in CRM On Demand, JD Edwards EnterpriseOne must be informed.

Note: This event is published only if the Integration Status is set to Sync ON.

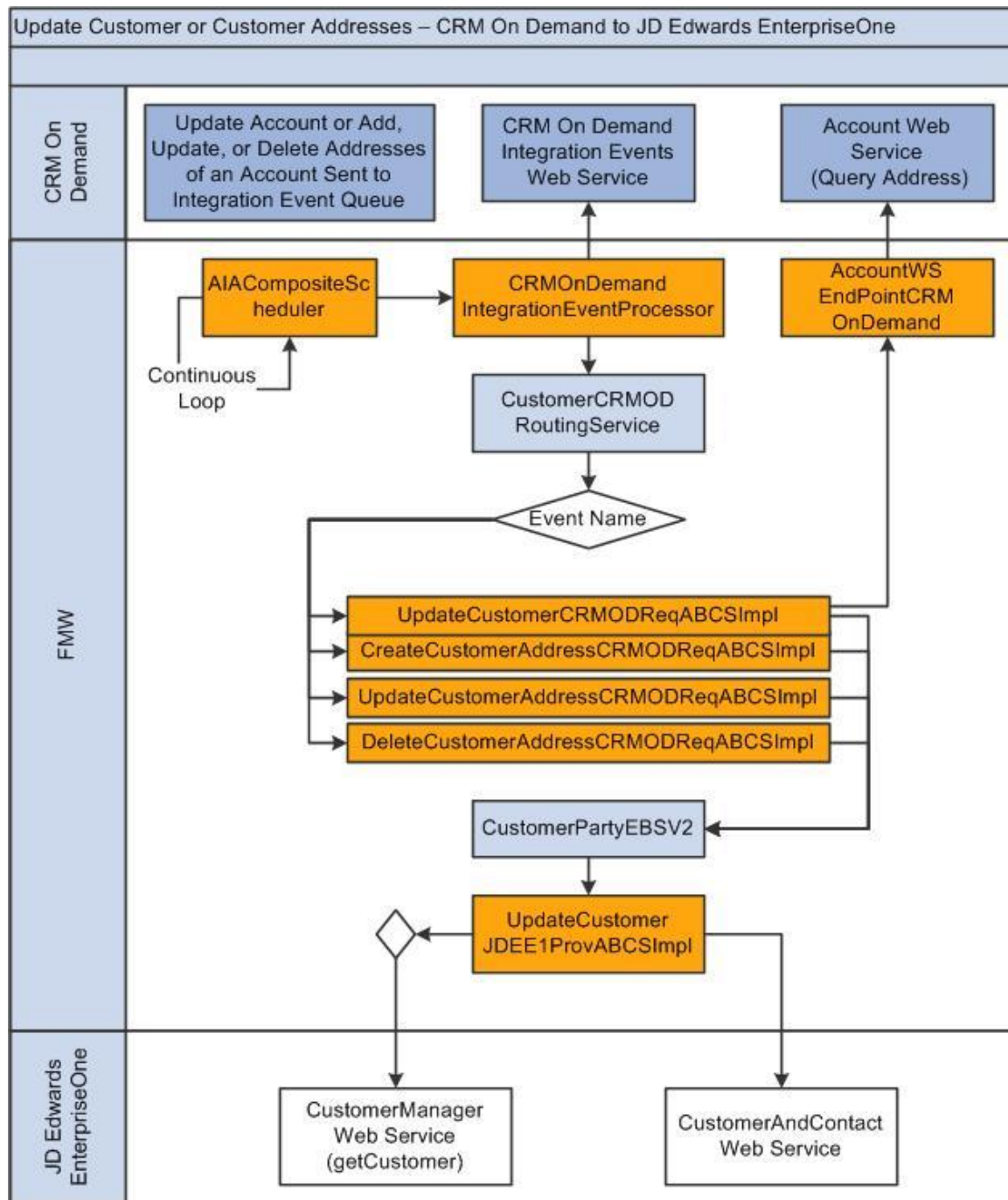
- The corresponding customer record in JD Edwards EnterpriseOne is updated with the changes that were made in CRM On Demand.
- Contact records that are created or updated in CRM On Demand and that are associated with the updated customer account are not synchronized to JD Edwards EnterpriseOne.

Interfaces

This integration flow uses these interfaces:

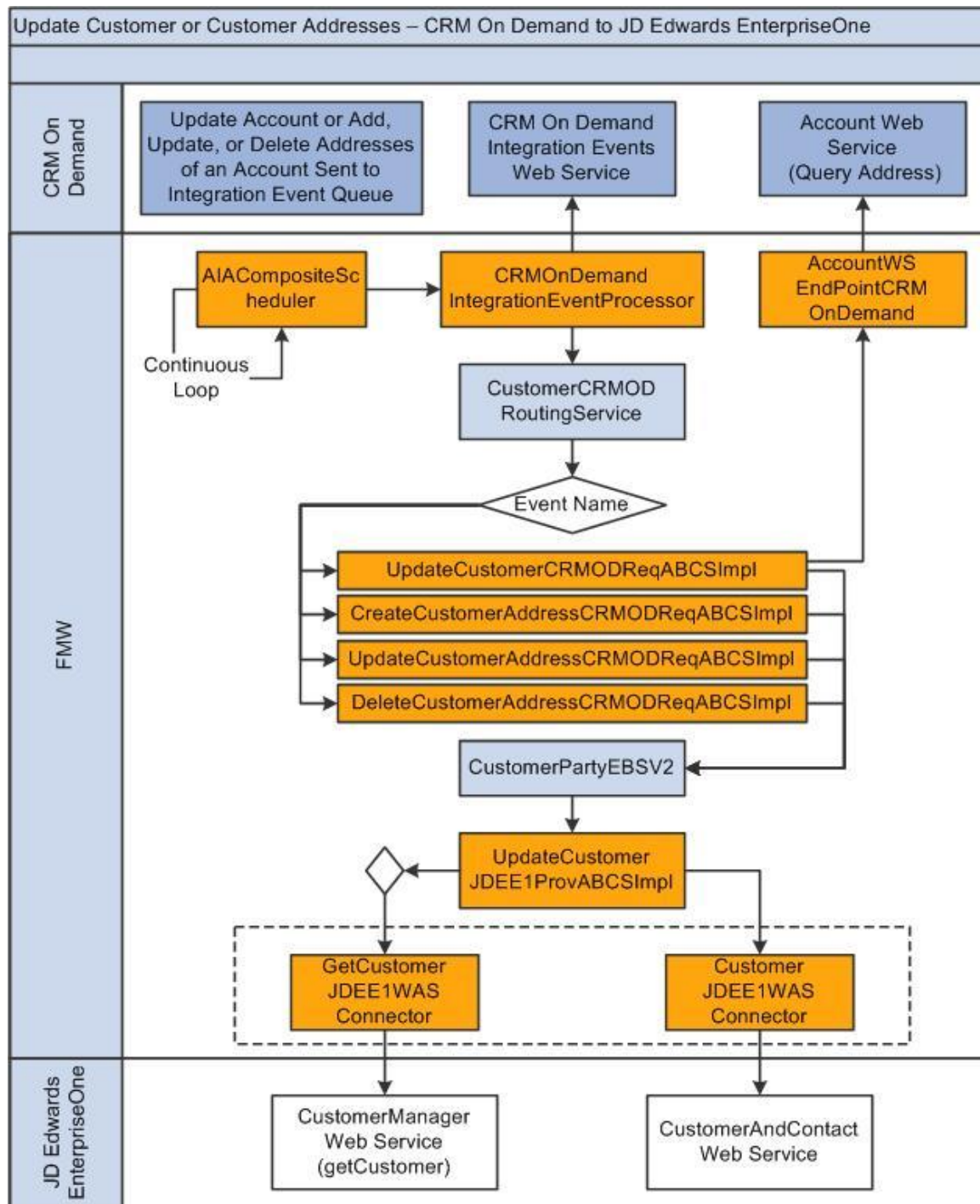
- CRM On Demand Integration Event Update Account
- CustomerCRMODRoutingService
- UpdateCustomerCRMODReqABCSEImpl
- CreateCustomerAddressCRMODReqABCSEImpl
- UpdateCustomerAddressCRMODReqABCSEImpl
- DeleteCustomerAddressCRMODReqABCSEImpl
- CustomerPartyEBSV2
- UpdateCustomerJDEE1ProvABCSEImpl
- JD Edwards EnterpriseOne web service getCustomer
- JD Edwards EnterpriseOne published business service CustomerAndContactManager
- JD Edwards EnterpriseOne web service process CustomerAndContact

This diagram illustrates the update customer from CRM On Demand to JD Edwards EnterpriseOne flow:



Update Customer from CRM On Demand to JD Edwards EnterpriseOne process flow

This diagram illustrates the Update Customer from- CRM On Demand to JD Edwards EnterpriseOne (WAS) flow:



Update Customer from CRM On Demand to JD Edwards EnterpriseOne (WAS) process flow

Program Logic

When you initiate the update customer process from CRM On Demand, these events occur:

1. If the Integration Status flag is set to SYNC ON, then when an account is updated in CRM On Demand the integration event Update Account sends the account data to the CRM On Demand Integration Event queue.
2. When AIACompositeScheduler is triggered, the system calls the IntegrationEventProcessor.

Note: AIACompositeScheduler is scheduled to automatically trigger at predefined intervals, such as 30-second intervals.

3. The IntegrationEventProcessor retrieves the message from the Integration Event queue and routes the ABM Update Account CRMOD ABM to the AIA_CustomerCRMJMSQ queue.
4. The IntegrationEventProcessor then deletes the event from the Integration Event queue.
5. The consumer, CustomerCRMJMSRoutingService, picks up the ABM and routes it to the appropriate ABCS, in this case, the UpdateCustomerCRMJMSReqABCSImpl.
6. The UpdateCustomerCRMJMSReqABCSImpl transforms the Update Account CRMOD ABM into the common message format of an EBM, in this case, the UpdateCustomerPartyEBM.

The UpdateCustomerCRMJMSReqABCSImpl also updates the CRM On Demand side of the cross-reference records, if necessary.

6. The UpdateCustomerPartyEBM is then sent to the EBS CustomerPartyEBSV2.
7. The CustomerPartyEBSV2 routes the UpdateCustomerPartyEBM to the JD Edwards EnterpriseOne ABCS, in this case, the UpdateCustomerJDEE1ProvABCSImpl.
8. The UpdateCustomerJDEE1ProvABCSImpl transforms the UpdateCustomerPartyEBM into the processCustomerAndContactABM.

Note: These steps assume that the ABM is in WLS format. If you are using the IBM WAS, a connector BPEL flow, CustomerJDEE1WASConnector, is called to transform the ABM from WLS to WAS format.

9. OWSM intercepts the message and inserts into the ABM the JD Edwards EnterpriseOne security sign-in information.
10. The UpdateCustomerJDEE1ProvABCSImpl routes the processCustomerAndContactABM to the CustomerAndContactManager public web service.
11. The CustomerAndContactManager web service calls the necessary JD Edwards EnterpriseOne business functions to update the customer record in the JD Edwards EnterpriseOne database.
12. The web service returns the address book number to the UpdateCustomerJDEE1ProvABCSImpl.

Note: If WAS is enabled, the web service returns the response to the CustomerJDEE1WASConnector, which transforms the response from WAS to WLS format before calling the UpdateCustomerJDEE1ProvABCSImpl.

13. UpdateCustomerJDEE1ProvABCSImpl updates the JD Edwards EnterpriseOne side of the cross-reference record, if necessary.

Deleting Customers in CRM On Demand and Synchronizing to JD Edwards EnterpriseOne

The delete customer integration flow is initiated in CRM On Demand when an existing customer record is deleted from the database.

This is the business process for deleting a customer from CRM On Demand and synchronizing to JD Edwards EnterpriseOne:

1. When an existing customer record is deleted from the CRM On Demand database, JD Edwards EnterpriseOne must be informed.

Note: This event is published only if the Integration Status is set to ON.

2. The deletion of the customer record from CRM On Demand initiates a process that attempts to delete the same customer record from JD Edwards EnterpriseOne.

Note: This process does not override any rules or program logic in JD Edwards EnterpriseOne that would prevent a customer record from being deleted from the system. Therefore, if the account does not qualify for deletion based on the existing rules and logic of the EnterpriseOne system, the record is not deleted.

3. Deleting a customer in CRM On Demand deletes the Customer Master, Address Book, and associated Who's Who records for that customer, provided that these records meet the criteria for deletion in JD Edwards EnterpriseOne.

Note: When an account is deleted in CRM On Demand, the cross-reference records for the account, as well as the shipping and billing addresses, will be deleted. If additional addresses are related to the account, those cross-reference records will be orphaned. The records are orphaned because, in the Delete Account message, the key values for the billing and shipping address are contained in the message, enabling the system to locate the cross-reference record. However, the key values for the additional addresses are not contained in the message. Therefore, because the records have already been deleted from CRM On Demand, you cannot query them.

If just the address is deleted, that situation will be handled as expected.

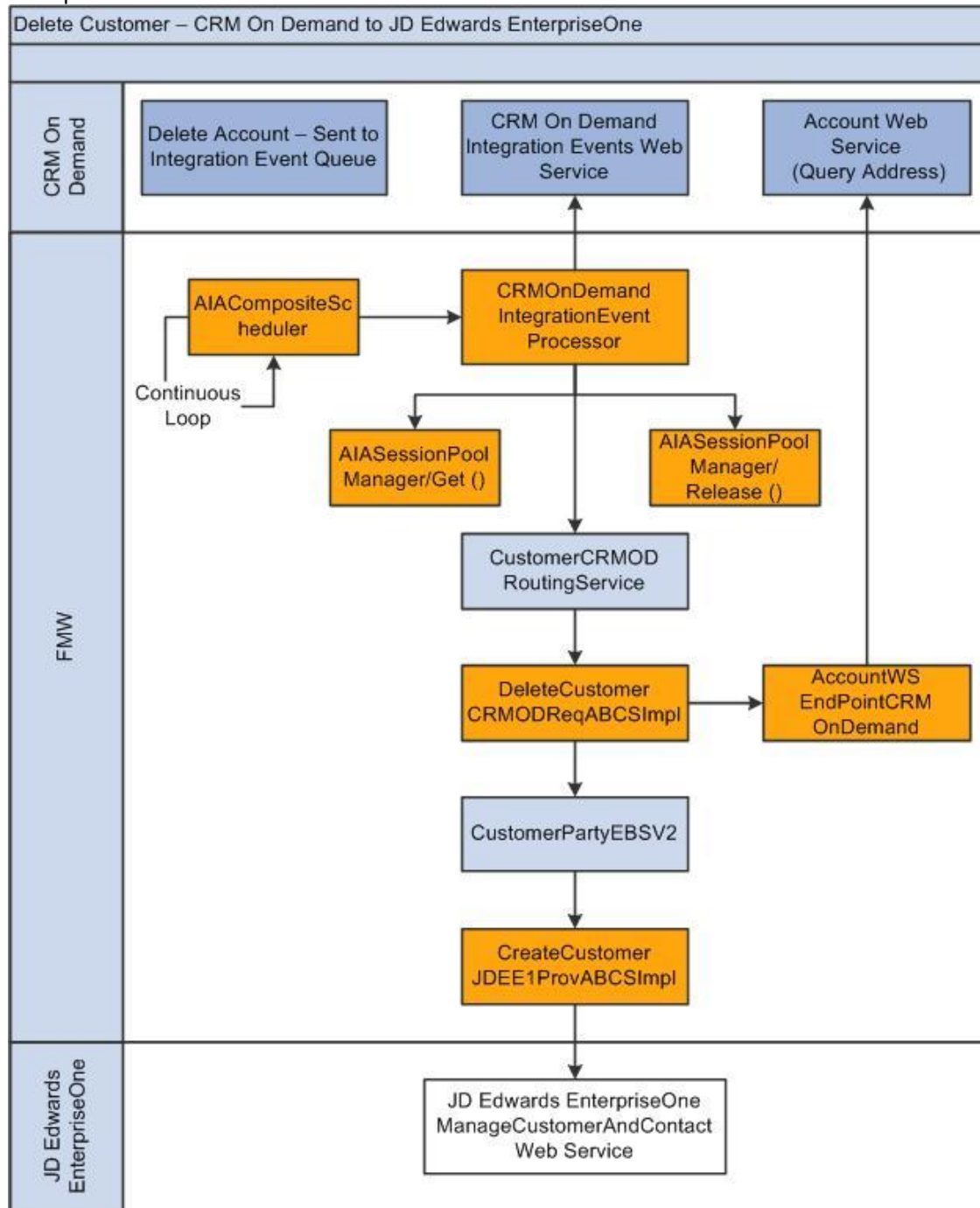
Interfaces

This integration flow uses these interfaces:

- CRM On Demand Integration Event Delete Account
- CustomerCRMODRoutingService
- DeleteCustomerCRMODReqABCSImpl
- CustomerPartyEBSV2

- DeleteCustomerJDEE1ProvABCImpl
- JD Edwards EnterpriseOne published business service CustomerAndContactManager
- JD Edwards EnterpriseOne web service processCustomerAndContact

This diagram illustrates the delete customer from CRM On Demand to JD Edwards EnterpriseOne flow:



Delete customer from CRM On Demand to JD Edwards EnterpriseOne process flow

Program Logic

When you initiate the delete customer process from CRM On Demand, these events occur:

1. If the Integration Status flag is set to ON, then when an account is deleted in CRM On Demand, the integration event Delete Account sends the account data to the CRM On Demand Integration Event queue.
2. When AIACompositeScheduler is triggered, the system calls the IntegrationEventProcessor.

Note: AIACompositeScheduler is scheduled to automatically trigger at predefined intervals, such as 30-second intervals.

3. The IntegrationEventProcessor retrieves the message from the Integration Event queue and routes the ABM Delete Account CRMOD ABM to the AIA_CustomerCRMODJMSQ queue.
The IntegrationEventProcessor then deletes the event from the Integration Event queue.
4. The consumer, CustomerCRMODRoutingService, picks up the ABM and routes it to the appropriate ABCS, in this case, the DeleteCustomerCRMODReqABCSImpl.
5. The DeleteCustomerCRMODReqABCSImpl transforms the Delete Account CRMOD ABM into the common message format of an EBM, in this case, the DeleteCustomerPartyEBM.
The DeleteCustomerCRMODReqABCSImpl also updates the CRM On Demand side of the cross-reference records, if necessary.
6. The DeleteCustomerPartyEBM is then sent to the EBS CustomerPartyEBSV2.
7. The CustomerPartyEBSV2 routes the DeleteCustomerPartyEBM to the JD Edwards EnterpriseOne ABCS, in this case, the DeleteCustomerJDEE1ProvABCSImpl.
8. The DeleteCustomerJDEE1ProvABCSImpl transforms the DeleteCustomerPartyEBM into the process CustomerAndContactABM.

Note: These steps assume that the ABM is in WLS format. If you are using the IBM WAS, a connector BPEL flow, CustomerJDEE1WASConnector, is called to transform the ABM from WLS to WAS format.

9. OWSM intercepts the message and inserts into the ABM the JD Edwards EnterpriseOne security sign-in information.
10. The DeleteCustomerJDEE1ProvABCSImpl routes the process CustomerAndContactABM to the CustomerAndContactManager public web service.
11. The CustomerAndContactManager web service calls the necessary JD Edwards EnterpriseOne business functions to delete the customer record from the JD Edwards EnterpriseOne database.
12. The web service returns the address book number to the DeleteCustomerJDEE1ProvABCSImpl.

Note: If WAS is enabled, the web service returns the response to the CustomerJDEE1WASConnector, which transforms the response from WAS to WLS format before calling the DeleteCustomerJDEE1ProvABCSImpl.

13. DeleteCustomerJDEE1ProvABCSImpl updates the JD Edwards EnterpriseOne side of the cross-reference record, if necessary.

Core AIA Components

The customer process integration uses these core AIA components:

- CustomerPartyEBSV2
- CustomerPartyEBO
- CustomerPartyEBM
- CreateCustomerPartyEBM
- UpdateCustomerPartyEBM
- DeleteCustomerPartyEBM
- SyncCustomerPartyListEBM

The core EBO and EBM XSD files can be located by EBO within this parent folder:

\$AIA_HOME/AIAMetaData/AIAComponents/EnterpriseObjectLibrary/Core/EBO/

The core EBS WSDL files can be located by EBO within this parent folder:

\$AIA_HOME/AIAMetaData/AIAComponents/EnterpriseBusinessServiceLibrary/Core/EBO/

For detailed documentation about 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 Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “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 will remain intact after a patch or an upgrade.

For more information, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Understanding Extensibility.”

Integration Services

These are the services delivered with this integration:

- CustomerPartyEBSV2
- CreateCustomerJDEE1ReqABCSImpl
- UpdateCustomerJDEE1ReqABCSImpl
- DeleteCustomerJDEE1ReqABCSImpl

- SyncCustomerJDEE1ReqABCImpl
- CreateCustomerCRMODReqABCImpl
- CreateCustomerAddressCRMODReqABCImpl
- UpdateCustomerCRMODReqABCImpl
- UpdateCustomerAddressCRMODReqABCImpl
- DeleteCustomerCRMODReqABCImpl
- DeleteCustomerAddressCRMODReqABCImpl
- CustomerJDEE1JMSConsumer
- CustomerExtractJDEE1Consumer
- CreateCustomerCRMODProvABCImpl
- UpdateCustomerCRMODProvABCImpl
- DeleteCustomerCRMODProvABCImpl
- SyncCustomerCRMODProvABCImpl
- CreateCustomerJDEE1ProvABCImpl
- UpdateCustomerJDEE1ProvABCImpl
- DeleteCustomerJDEE1ProvABCImpl
- AccountWSEndpointCRMONDemand
- CustomerJDEE1WASConnector
- GetCustomerJDEE1WASConnector
- SyncCustomerCRMODRoutingService
- CustomerCRMODRoutingService

Many of the services in this section include preprocesses to ensure that ABC services are extensible.

For more information, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Understanding Extensibility.”

For more information, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Configuring and Using Oracle Enterprise Repository as the Oracle AIA SOA Repository.”

CustomerPartyEBSV2

The CustomerPartyEBSV2 Enterprise Business Service exposes all of the enterprise operations that could be performed with a CustomerParty enterprise object. All of the customer management integration flows use the operations provided by this EBS.

These are the operations that the CustomerPartyEBSV2 EBS provides:

- CreateCustomerParty
- UpdateCustomerParty
- DeleteCustomerParty
- SyncCustomerPartyList

For more information, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Designing and Developing Enterprise Business Services."

For more information, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Understanding Enterprise Business Services."

Routing Rules

Most of the operations that are associated with the CustomerPartyEBSV2 provide simple pass-through functionality to an appropriate provider ABCS implementation. In such cases, the only program logic for the operation is the routing rules. The routing rules specify which target provider ABCS to route the message to.

CreateCustomerParty routing rules:

If EBM Header contains...	Route to...
JDEE1	CreateCustomerCRMODProvImpl
CRMOD	CreateCustomerJDEE1ProvImpl

UpdateCustomerParty routing rules:

If EBM Header contains...	Route to...
JDEE1	UpdateCustomerCRMODProvImpl
CRMOD	UpdateCustomerJDEE1ProvImpl

DeleteCustomerParty routing rules:

If EBM Header contains...	Route to...
JDEE1	DeleteCustomerCRMODProvImpl

If EBM Header contains...	Route to...
CRM0D	DeleteCustomerJDEE1ProvImpl

SyncCustomerParty routing rules:

If EBM Header contains...	Route to...
JDEE1	SyncCustomerCRM0DProvImpl

CreateCustomerJDEE1ReqABCSImpl

The CreateCustomerJDEE1ReqABCSImpl service transforms the CreateCustomerJDEE1ABM message into the appropriate CreateCustomerPartyEBM format and invokes the CreateCustomerPartyEBS operation. This service is implemented as a BPEL service.

Note: JD Edwards EnterpriseOne writes the data associated with the Classification Code Array to the EBM but does not consume that data.

This interface service provides one asynchronous, one-way operation:
CreateCustomerJDEE1ReqABCSImpl

These preprocesses are included in the CreateCustomerJDEE1ReqABCSImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

Note: The CustomerParty ClassificationCode array will be populated with JD Edwards EnterpriseOne address book category codes. The listID attribute will be populated with Address Book Category Code *nnn* and the listAgencyID attribute will be populated with *JDEE1*. These attributes indicate which category code and system each value represents. They will not be consumed by the delivered CRM On Demand ABCS, but they will be available in the EBO for filtering.

The CustomerPartyAccount ClassificationCode array will be populated with JD Edwards EnterpriseOne customer master category codes. The listID attribute will be populated with Customer Master Category Code *nnn* and the listAgencyID attribute will be populated with *JDEE1*. These attributes indicate which category code and system each value represents. They will not be consumed by the delivered CRM On Demand ABCS, but will be available in the EBO for filtering.

UpdateCustomerJDEE1ReqABCSImpl

The UpdateCustomerJDEE1ReqABCSImpl service transforms the UpdateCustomerJDEE1ABM message into the appropriate CreateCustomerPartyEBM format and invokes the UpdateCustomerPartyEBS operation.

This interface service provides one asynchronous, one-way operation:
UpdateCustomerJDEE1ReqABCSImpl

These preprocesses are included in the UpdateCustomerJDEE1ReqABCSImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

DeleteCustomerJDEE1ReqABCSImpl

The DeleteCustomerJDEE1ReqABCSImpl service transforms the DeleteCustomerJDEE1ABM message into the appropriate CreateCustomerPartyEBM format and invokes the DeleteCustomerPartyEBS operation.

This interface service provides one asynchronous, one-way operation:
DeleteCustomerJDEE1ReqABCSImpl

These preprocesses are included in the DeleteCustomerJDEE1ReqABCSImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

SyncCustomerJDEE1ReqABCSImpl

The SyncCustomerJDEE1ReqABCSImpl service transforms the customer extract XML data into the appropriate CreateCustomerPartyEBM format and invokes the CreateCustomerPartyEBS operation.

This interface service provides one asynchronous, one-way operation:
SyncCustomerJDEE1ReqABCSImpl

These preprocesses are included in the SyncCustomerJDEE1ReqABCSImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

CreateCustomerCRMODReqABCSImpl

The CreateCustomerCRMODReqABCSImpl service receives the Account Insert integration event from CRM On Demand. It then queries CRM On Demand to determine whether multiple addresses exist for the customer. If multiple addresses exist, the service combines the information into one single message event before transforming the message from CRM On Demand format into the CreateCustomerPartyEBM format. After transforming the message, this service invokes the CustomerPartyEBSV2.

This interface service provides one asynchronous, one-way operation:
CreateCustomerCRMODReqABCSImpl

CreateCustomerAddressCRMODReqABCImpl

The CreateCustomerAddressCRMODReqABCImpl service receives an Address Insert integration event from CRM On Demand. The service checks to determine whether the address has a cross-reference ID. If so, the address has been processed during account creation and no further processing is required. If the cross-reference ID does not exist, the service transforms the event message from CRM On Demand format to UpdateCustomerPartyEBM format and invokes the UpdateCustomerPartyEBS.

This interface service provides one asynchronous, one-way operation:
CreateCustomerAddressCRMODReqABCImpl

UpdateCustomerCRMODReqABCImpl

The UpdateCustomerCRMODReqABCImpl receives an Account Update integration event from CRM On Demand. The service converts the event message from CRM On Demand format to UpdateCustomerPartyEBM format and invokes the UpdateCustomerPartyEBS.

If the account has not already been synchronized to JD Edwards EnterpriseOne, the service queries CRM On Demand to fetch full information about the account, including account addresses. The service then converts the message to UpdateCustomerPartyEBM format and invokes the CreateCustomerPartyEBS to enable JD Edwards EnterpriseOne to create a new account, including addresses, if necessary.

This interface service provides one asynchronous, one-way operation:
UpdateCustomerCRMODReqABCImpl

UpdateCustomerAddressCRMODReqABCImpl

The UpdateCustomerAddressCRMODReqABCImpl service receives an Address Update integration event from CRM On Demand. The service converts the event message from CRM On Demand format to the UpdateCustomerPartyEBM format and invokes the UpdateCustomerPartyEBS.

For this service to function properly, these criteria must be met:

- The account ID must exist in the CRM On Demand message.
- The host ID must exist in the CRM On Demand message.
- The CRM On Demand input message can contain only one address.
- The CRM On Demand input message must contain some information about the address account.

Only the account ID is used during transforming to supply account identification. All other information about the account is discarded because the purpose of this service is to update an address, not an account.

This interface service provides one asynchronous, one-way operation:
UpdateCustomerAddressCRMODReqABCImpl

DeleteCustomerCRMODReqABCImpl

The DeleteCustomerCRMODReqABCImpl service receives an Account Delete integration event from CRM On Demand. The service converts the message from CRM On Demand format to DeleteCustomerPartyEBM format and invokes the DeleteCustomerPartyEBS.

For this service to function properly, these criteria must be met:

- The account ID must exist in the CRM On Demand message.
- The host ID must exist in the CRM On Demand message.
- The CRM On Demand input message can contain only one account.
- The CRM On Demand input message contains only delete account information. Account addresses are not included in the message. If address information exists in the message, it is ignored and not transformed.

This interface service provides one asynchronous, one-way operation:
DeleteCustomerCRMODReqABCImpl

DeleteCustomerAddressCRMODReqABCImpl

The DeleteCustomerAddressCRMODReqABCImpl service receives an Address Delete integration event from CRM On Demand. The service converts the message from CRM On Demand format to the UpdateCustomerPartyEBM format and invokes UpdateCustomerPartyEBS.

The Address Delete integration event occurs only when a CRM On Demand user deletes an individual address. The Address Delete integration event is not generated automatically when a CRM On Demand user deletes an account that is associated with addresses.

For this service to function properly, these criteria must be met:

- The account ID must exist in the CRM On Demand message.
- The host ID must exist in the CRM On Demand message.
- The CRM On Demand input message can contain only one address.
- The CRM On Demand input message contains the deleted address information and also some information about the address account.

Only the account ID is used during transforming to populate account identification. All other information about the account is discarded because the purpose of this service is to update an address, not an account.

This interface service provides one asynchronous, one-way operation:
DeleteCustomerAddressCRMODReqABCImpl

CustomerJDEE1JMSConsumer

The CustomerJDEE1JMSConsumer service pulls messages from a JMS Queue to start processing of a customer add, change, or delete in JD Edwards EnterpriseOne. No public interface is available for this service. An instance for this service is created only when a message is pulled from the queue.

Routing Rules

After messages are read from the queue, the routing service will route to the appropriate ABCS using the logic in this table:

If this occurs in EnterpriseOne...	Route Message To...
CreateCustomer	CreateCustomerJDEE1ReqABCImpl
UpdateCustomer	UpdateCustomerJDEE1ReqABCImpl
DeleteCustomer	DeleteCustomerJDEE1ReqABCImpl

CustomerExtractJDEE1Consumer

The mediator composite CustomerExtractJDEE1Consumer contains two adapter services:

- CustomerExtractJDEE1FTPConsumer_ep is an FTP consumer for consuming customer extracts from EnterpriseOne
- CustomerExtractJDEE1FileConsumer_ep is a file consumer for consuming customer extracts from EnterpriseOne.

CustomerExtractJDEE1FTPConsumer_ep

The CustomerExtractJDEE1FTPConsumer_ep adapter process retrieves and debatches xml files that are created when EnterpriseOne batch extract programs are processed. These files contain customer information for multiple customers. The R03012D2 batch program generates an xml file with several customers that this service will pick up for processing. No public interface is available for this service. An instance for this service is created only when a message is pulled from the queue.

This service uses an FTP adapter to pull the xml file directly from the EnterpriseOne server for processing. An FTP Server must be configured on the EnterpriseOne Enterprise Server. The FTP adapter must be configured to use the FTP connection that is set up on the EnterpriseOne Enterprise Server. Additionally, the PhysicalDirectory property for this service must be set up with the location of the XML files.

This service has several configurable mediator properties:

- UseHeaders: false
- Recursive: false
- FileType: ascii
- MinimumAge: 0
- IncludeFiles: R03012D2.*\xml
- PollingFrequency: Interval in seconds to check the arrival of SyncCustomer input file. The default value for this property is 30 seconds.
- PhysicalDirectory: Location of the SyncCustomer input file in the SOA Application Server. You must update this property with the file location.

- DeleteFile: true
- PublishSize: Size of the batch that the incoming file is to be split into (20).

Note: You should use a value of 20 or less for this property because CRM On Demand has a limitation of 20 records when processing a batch insert.

For more information, see *Enterprise Service Bus Quick Start Guide 10g*, “Creating, Configuring, and Managing an Oracle Enterprise Service Bus.”

For more information, see Chapter 6: Configuring the Lead to Order PIP > Setting Up Batch Processing Information.

CustomerExtractJDEE1FileConsumer_ep

The CustomerExtractJDEE1FileConsumer_ep adapter process retrieves and debatches xml files that are created when EnterpriseOne batch extract programs are processed. These files are retrieved from the <AIA_HOME>/JDEE1_In folder on the WebLogic Server, and they contain customer information for multiple customers. The R03012D2 batch program generates an xml file with several customers that this service will pick up for processing. No public interface is available for this service. An instance for this service is created only when a message is pulled from the queue.

Unlike the CustomerExtractJDEE1FTPConsumer_ep service, this service does not use an FTP adapter. However, the PhysicalDirectory property for this service must be set up with the location of the XML files. The XML files must be moved to a folder on the SOA Server for this service to function properly.

This service has several configurable mediator properties:

- DeleteFile: true
- PollingFrequency: Interval in seconds to check the arrival of Sync Customer input file. The default value for this property is 30 seconds.
- UseHeaders: false
- IncludeFiles: R03012D2.*\.xml
- MinimumAge: 0
- PhysicalDirectory: Location of the Sync Customer input file in the SOA Application Server. You must update this property with the file location.
- PublishSize: Size of the batch that the incoming file is to be split into (20).
- Recursive: false.

Note: You should use a value of 20 or less for this property because CRM On Demand has a limitation of 20 records when processing a batch insert.

For more information, see *Enterprise Service Bus Quick Start Guide 10g*, “Creating, Configuring, and Managing an Oracle Enterprise Service Bus.”

CreateCustomerCRMODProvABCImpl

The CreateCustomerCRMODProvABCImpl service transforms the CreateCustomerPartyEBM messages into the appropriate CRM On Demand CreateCustomerABM format and invokes the AccountWSEndpointCRMOnDemand utility with an insert action to establish a session with CRM On Demand. The utility then calls the CRM On Demand Account Insert web service operation.

This interface service provides one asynchronous operation:
CreateCustomerCRMODProvABCImpl

These preprocesses are included in the CreateCustomerCRMODProvABCImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

UpdateCustomerCRMODProvABCImpl

The UpdateCustomerCRMODProvABCImpl service transforms the UpdateCustomerPartyEBM messages into the appropriate CRM On Demand UpdateCustomerABM format and invokes the AccountWSEndpointCRMOnDemand utility with an update action to establish a session with CRM On Demand. The utility then calls the CRM On Demand Account Update web service operation. If the update fails, the service calls the utility again, updates the customer record with the Integration Status of Sync FAILED, and updates the Integration Message field with details of the error.

This interface service provides one asynchronous operation:
UpdateCustomerCRMODProvABCImpl

These preprocesses are included in the UpdateCustomerCRMODProvABCImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

DeleteCustomerCRMODProvABCImpl

The DeleteCustomerCRMODProvABCImpl service transforms the DeleteCustomerPartyEBM messages into the appropriate CRM On Demand DeleteCustomerABM format and invokes the AccountWSEndpointCRMOnDemand utility with an update action to establish a session with CRM On Demand. The utility then calls the CRM On Demand Account Update web service operation.

This interface service provides one asynchronous operation:
DeleteCustomerCRMODProvABCImpl

These preprocesses are included in the DeleteCustomerCRMODProvABCImpl to ensure that ABC services are extensible:

- PreprocessABM

- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

SyncCustomerCRMODProvABCSImpl

The SyncCustomerCRMODProvABCSImpl service transforms the SyncCustomerPartyListEBM messages into the appropriate CRM On Demand AccountABM format and invokes the CRM On Demand Account Upsert web service operation.

This interface service provides one asynchronous operation:
SyncCustomerCRMODProvABCSImpl

These preprocesses are included in the SyncCustomerCRMODProvABCSImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

CreateCustomerJDEE1ProvABCSImpl

The CreateCustomerJDEE1ProvABCSImpl service transforms the CreateCustomerPartyEBM messages into the appropriate processCustomerAndContactABM format (processCustomerAndContact web service input) and invokes the processCustomerAndContact web service in JD Edwards EnterpriseOne.

This interface service provides one asynchronous operation:
CreateCustomerJDEE1ProvABCSImpl

These preprocesses are included in the CreateCustomerJDEE1ProvABCSImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

XSL extensibility for the transformation is also included in the process, allowing for the EBM message to be augmented at custom points in the EBO.

Security Considerations

JD Edwards EnterpriseOne web services implement WS-Security, which means that the user must provide a valid user name and password for the EnterpriseOne system in the header for the web service call. For this PIP, a single proxy user will be set up in EnterpriseOne. All web service calls will send this proxy user in for WS-Security. We recommend using OWSM to apply this proxy user to all web service calls that are sent from this provider ABCS.

For more information, see Chapter 6: Configuring the Lead to Order PIP > Setting Up Oracle Web Services Manager Security Information.

UpdateCustomerJDEE1ProvABCSImpl

The UpdateCustomerJDEE1ProvABCSImpl service transforms the UpdateCustomerPartyEBM messages into the appropriate JDEE1 UpdateCustomerABM format (processCustomerAndContact web service input) and invokes the processCustomerAndContact web service in JD Edwards EnterpriseOne.

This interface service provides one asynchronous operation:
UpdateCustomerJDEE1ProvABCSImpl

These preprocesses are included in the UpdateCustomerJDEE1ProvABCSImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

XSL extensibility for the transformation is also included in the process, allowing for the EBM message to be augmented at custom points in the EBO.

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For more information, see Chapter 6: Configuring the Lead to Order PIP > Setting Up Oracle Web Services Manager Security Information.

DeleteCustomerJDEE1ProvABCSImpl

The DeleteCustomerJDEE1ProvABCSImpl service transforms the DeleteCustomerPartyEBM messages into the appropriate JDEE1 DeleteCustomerABM format (processCustomerAndContact web service input) and invokes the processCustomerAndContact web service in JD Edwards EnterpriseOne.

This interface service provides one asynchronous operation:
DeleteCustomerJDEE1ProvABCSImpl

These preprocesses are included in theDeleteCustomerJDEE1ProvABCSImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller. XSL extensibility for the transformation is also included in the process, allowing for the EBM message to be augmented at custom points in the EBO.

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For more information, see Chapter 6: Configuring the Lead to Order PIP > Setting Up Oracle Web Services Manager Security Information.

AccountWSEndpointCRMONDemand

The AccountWSEndpointCRMONDemand utility BPEL flow is invoked within the four CRM On Demand provider ABCS services to retrieve session, release session and to conduct insert, update, upsert, and delete of CRM On Demand accounts. The AccountWSEndpointCRMONDemand utility invokes these BPEL flows:

- CRMOnDemandIntegrationEventProcessor
- AIACompositeScheduler
- AIASessionPoolManager/Get()
- AIASessionPoolManager/Release()

Request message:

- ODInstanceID (HostID)
- Operation - Insert/Update/Upsert/Delete
- ODAccountABM

Response message:

- Account ID
- Error Status
- Error Message

CustomerJDEE1WASConnector

This service enables users who deploy JD Edwards EnterpriseOne web services using the IBM Websphere Application Server (WAS) to implement the Lead to Order PIP. These JD Edwards EnterpriseOne provider ABCS services use the CustomerJDEE1WASConnector service:

- CreateCustomerJDEE1ProvABCSEImpl
- UpdateCustomerJDEE1ProvABCSEImpl
- DeleteCustomerJDEE1ProvABCSEImpl

This service receives the ABM messages from the previously listed services in the WLS format and transforms them into WAS format. It then invokes the WAS web service, process Customer And Contact. When it receives the output from the WAS web service, it transforms the message into WLS format.

This interface service provides one synchronous operation: process CustomerAndContact

GetCustomerJDEE1WASConnector

This service enables users who deploy JD Edwards EnterpriseOne web services using the IBM WAS to implement the Lead to Order PIP. The JD Edwards EnterpriseOne provider ABCS service UpdateCustomerJDEE1ProvABCServiceImpl uses the GetCustomerJDEE1WASConnector service.

This service receives the ABM messages from the UpdateCustomerJDEE1ProvABCServiceImpl in the WLS format and transforms them into WAS format. It then invokes the WAS web service, getCustomer. When it receives the output from the WAS web service, it transforms the message into WLS format.

This interface service provides one synchronous operation: getCustomer

SyncCustomerCRMODRoutingService

This service is invoked from CustomerPartyEBSV2 during the SyncCustomerPartyList operation. It routes messages to the SyncCustomerCRMODProvABCServiceImpl service. Resequencing is enabled for this service. To review additional information about resequencing:

For more information, see Chapter 6: Configuring the Lead to Order PIP > Handling Errors.

CustomerCRMODRoutingService

This service is invoked from CustomerPartyEBSV2 during all customer operations other than sync. It routes messages to the appropriate CustomerCRMODProvABCServiceImpl service. Resequencing is enabled for this service.

For more information about resequencing, see Chapter 6: Configuring the Lead to Order PIP > Handling Errors.

Chapter 4: Process Integration for Product Management

This chapter provides an overview of the process integration for product management and discusses:

- Creating product in JD Edwards EnterpriseOne and synchronizing to CRM On Demand
- Updating product in JD Edwards EnterpriseOne and synchronizing to CRM On Demand
- Core Application Integration Architecture (AIA) components
- Integration services

Overview

You use the product integration to update CRM On Demand with item information from JD Edwards EnterpriseOne. CRM On Demand users can then attach the uploaded information about products to sales opportunities in CRM On Demand. The CRM On Demand user can then generate a sales quote or sales order in JD Edwards EnterpriseOne directly from the CRM On Demand opportunity. When the opportunity includes product information for items that are stored in JD Edwards EnterpriseOne, the system includes those items, along with the pricing information from JD Edwards EnterpriseOne, on the quote or sales order.

The process integration for product (item) management between JD Edwards EnterpriseOne and CRM On Demand supports the following integration flows:

- Bulk load product information from JD Edward EnterpriseOne to CRM On Demand.

This flow enables the extract, transformation, and load or synchronization of product data from JD Edwards EnterpriseOne to CRM On Demand. This flow uses JD Edwards EnterpriseOne batch programs to extract relevant item (product) data from JD Edwards EnterpriseOne, and loads the data to the appropriate CRM On Demand tables.

For more information, see Chapter 2: Bulk Data Loads and Synchronization.

- Create products in JD Edwards EnterpriseOne and synchronize to CRM On Demand.

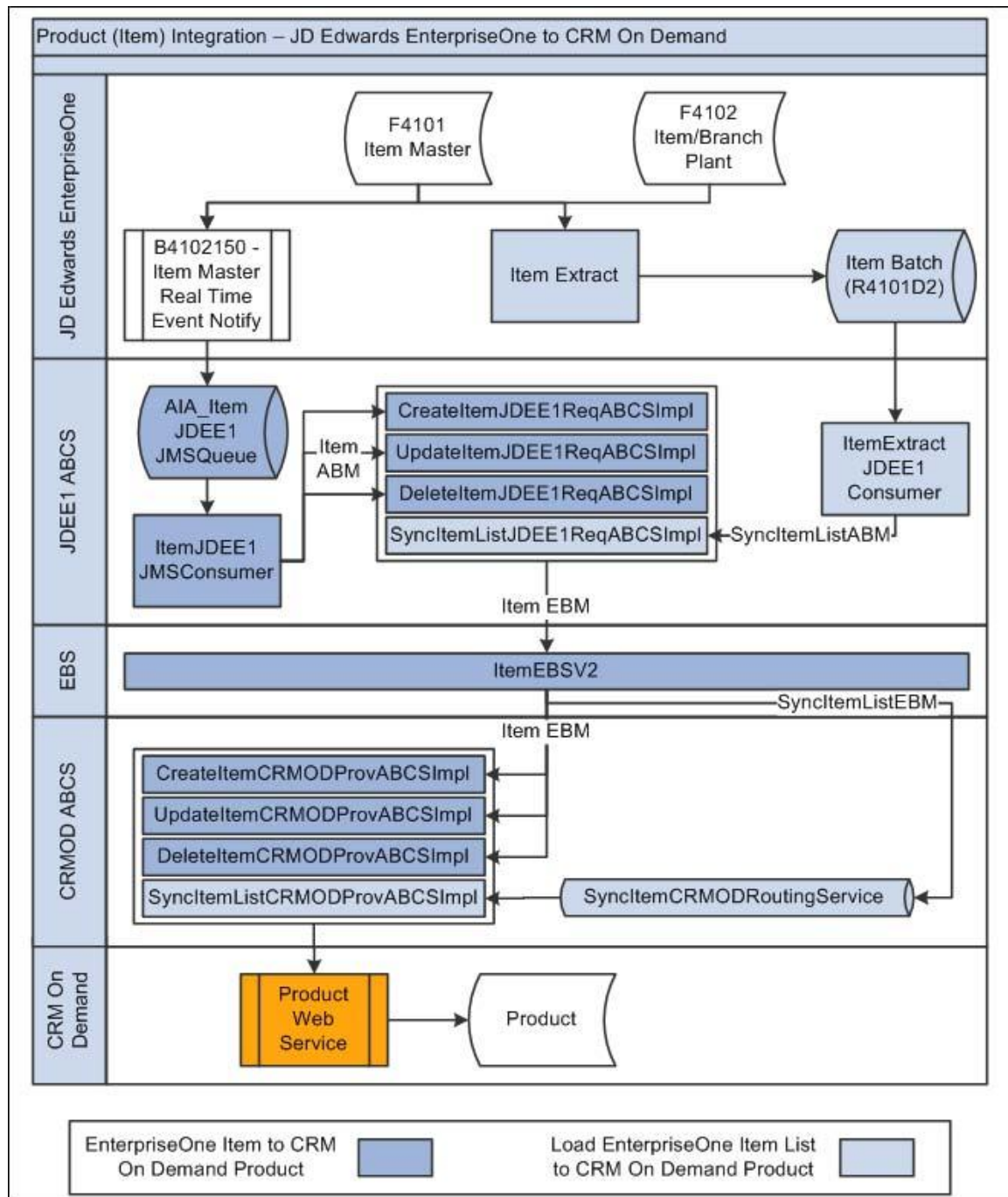
This flow enables you to create an item record in JD Edwards EnterpriseOne and synchronize the new item to CRM On Demand, where a corresponding product record is then created. This flow uses an EnterpriseOne realtime event (RTE) to notify the system that a new item has been created and is available for synchronization.

- Update products in JD Edwards EnterpriseOne and synchronize to CRM On Demand.
- This flow enables you to update an existing item record in JD Edwards EnterpriseOne and synchronize the changes to CRM On Demand, where the corresponding product record is then updated. This flow uses an EnterpriseOne RTE to notify the system that an existing item has been updated, and that changes are available for synchronization.

- Delete products in JD Edwards EnterpriseOne and synchronize to CRM On Demand. This flow enables you to delete item records from JD Edwards EnterpriseOne and synchronize the change to CRM On Demand, where the corresponding product record is updated as Not Orderable. This flow uses an EnterpriseOne RTE to notify the system that an item has been deleted, and that changes are available for synchronization.

For more information about error handling during the product process, see Chapter 6: Configuring the Lead to Order PIP > Handling Errors.

This diagram illustrates the product integration process flow:



Product integration process flow

Solution Assumptions and Constraints

These are the assumptions and constraints for the product integration process:

1. Product data synchronization is one way from JD Edwards EnterpriseOne to CRM On Demand.

Updates made to product records in CRM On Demand are not updated to JD Edwards EnterpriseOne.

- Maintenance of product data should occur only in JD Edwards EnterpriseOne, not in CRM On Demand.
- If you update product information in CRM On Demand and that product exists in JD Edwards EnterpriseOne, then the synchronization process might overwrite the changes that you made in CRM On Demand.
- This process does not support kit and configured items.

The system does not display any explicit errors when processing kit and configured items; however, you can set up routing rules to filter kit and configured items.

Routing Rules for Kit and Configured Items

Because this PIP does not fully support kit and configured items, you can set up routing rules to filter kit and configured items from being synchronized to CRM On Demand. These tables list example routing rules that you can use.

Note: The filter string values should match the ITEM_TYPE domain value map (DVM) common values for the JDEE1 Kit and Configurator stocking types.

Example of Create Item Routing rule filter:

Check EBM Data Area...	Route To...
CreateItem.TypeCode!='Kit'and CreateItem.TypeCode!='Configurator'	CreateItemCRMODProvABCImpl

Example of Update Item Routing rule filter:

Check EBM Data Area...	Route To...
UpdateItem.TypeCode!='Kit'and UpdateItem.TypeCode!='Configurator'	UpdateItemCRMODProvABCImpl

Example of Delete Item Routing rule filter:

Check EBM Data Area...	Route To...
DeleteItem.TypeCode!='Kit'and DeleteItem.TypeCode!='Configurator'	DeleteItemCRMODProvABCImpl

Example of SyncItemList Routing rule filter:

Check EBM Data Area...	Route To...
SyncItemList.TypeCode!='Kit'and SyncItemList.TypeCode!='Configurator'	SyncItemCRMODRoutingService

Creating Product in JD Edwards EnterpriseOne and Synchronizing to CRM On Demand

The create product integration flow is initiated in JD Edwards EnterpriseOne when a new item (product) record is added to the database.

The business process for creating products in JD Edwards EnterpriseOne and synchronizing to CRM On Demand is:

- When a new item record is created in JD Edwards EnterpriseOne and committed to the database, CRM On Demand must be informed.

Note: This event is published only if the JD Edwards EnterpriseOne RTE RTIMOUT is activated.

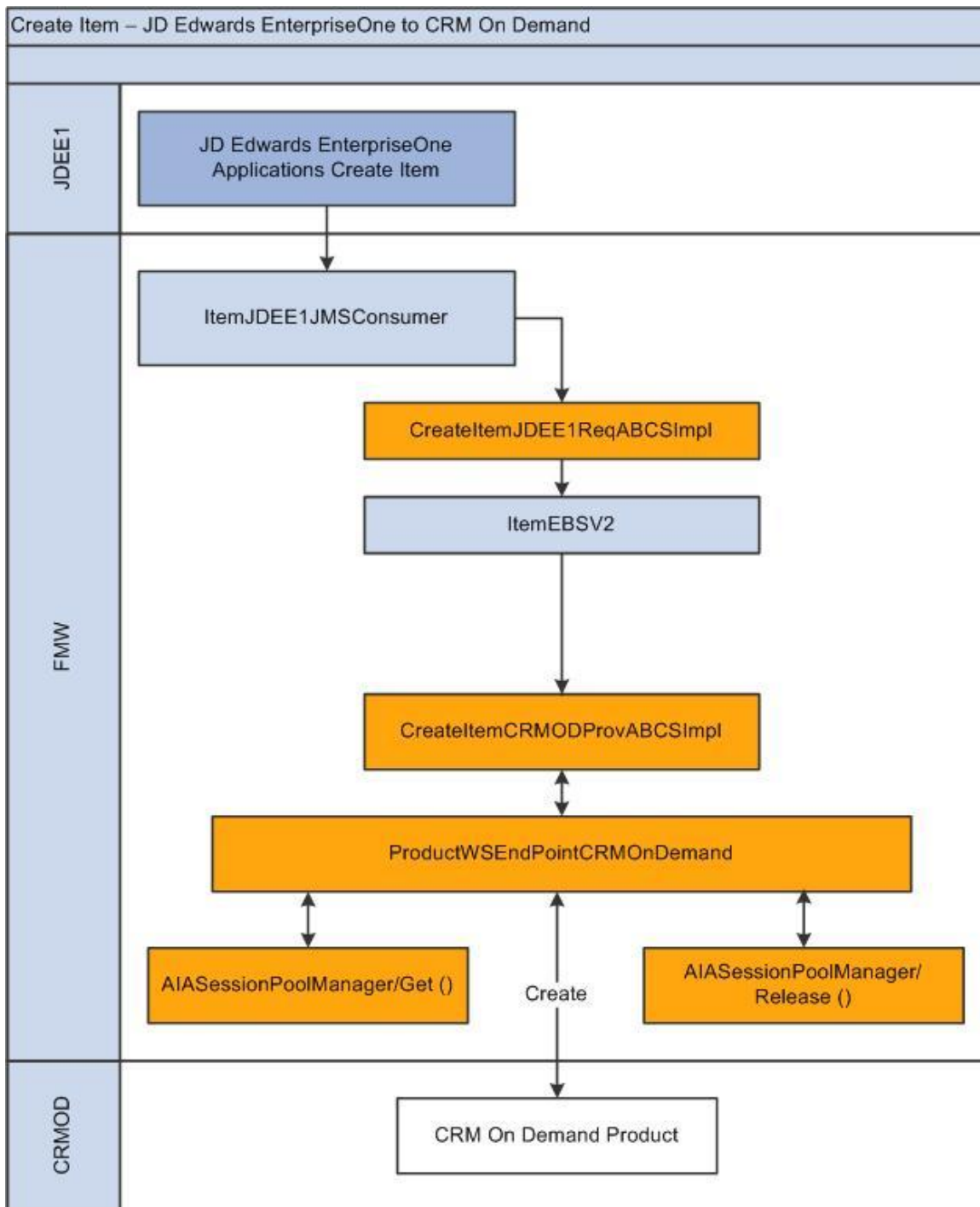
- The creation of a new JD Edwards EnterpriseOne item results in the creation of a new product in CRM On Demand.

Interfaces

This integration flow uses these interfaces:

- JD Edwards EnterpriseOne RTE RTIMOUT
- ItemJDEE1JMSConsumer
- CreateItemJDEE1ReqABCSImpl
- ItemEBSV2
- CreateItemCRMOProvABCSImpl
- ProductWSEndpointCRMOnDemand
- CRM On Demand web service ProductWS_ProductInsert

This diagram illustrates the create product from JD Edwards EnterpriseOne to CRM On Demand flow:



Create product from JD Edwards EnterpriseOne to CRM On Demand process flow

Program Logic

When you initiate the create product process from JD Edwards EnterpriseOne, these events occur:

1. When you create a new item record in JD Edwards EnterpriseOne, the RTE RTIMOUT is triggered.
2. RTIMOUT writes the newly created item record to the F90710 table.
3. The transaction server in JD Edwards EnterpriseOne receives the application business message (ABM) CreateItemJDEE1ABM and writes it to the AIA_ITEMJDEE1JMSQUEUE.
4. The consumer, ItemJDEE1JMSConsumer, picks up the ABM and routes it to the appropriate application business connector service (ABCS), in this case, the CreateItemJDEE1ReqABCSImpl.
5. The CreateItemJDEE1ReqABCSImpl transforms the CreateItemJDEE1ABM into the common message format of an enterprise business message (EBM), in this case, the CreateItemRequestEBM.

The CreateItemJDEE1ReqABCSImpl also creates the EnterpriseOne side of the necessary cross-reference records.

6. The EBM is then sent to the enterprise business service (EBS) ItemEBSV2.
7. The ItemEBSV2 routes the EBM to the CRM On Demand ABCS, in this case, the CreateItemCRMODProvABCSImpl.
8. The CreateItemCRMODProvABCSImpl transforms the EBM into a CRM On Demand ABM format.
9. The ABM is then routed to the utility ProductWSEndPointCRMOnDemand, which establishes a session with CRM On Demand, transforms the ABM into an input message, and calls the CRM On Demand web service ProductWS_ProductInsert to insert the record into the CRM On Demand database.
10. The ProductWS_ProductInsert web service returns the newly created Product ID to the ProductWSEndPointCRMOnDemand utility, which releases the session that is established and sends the Product ID to the CreateItemCRMODProvABCSImpl.
11. The CreateItemCRMODProvABCSImpl updates the CRM On Demand side of the cross-reference record with the Product ID.

Updating Product in JD Edwards EnterpriseOne and Synchronizing to CRM On Demand

The update product integration flow is initiated in JD Edwards EnterpriseOne when an existing item (product) record is changed in the database.

The business process for updating products in JD Edwards EnterpriseOne and synchronizing to CRM On Demand is:

- When an existing item record is changed in JD Edwards EnterpriseOne, and the change is committed to the database, CRM On Demand must be informed.

Note: This event is published only if the JD Edwards EnterpriseOne RTE RTIMOUT is activated.

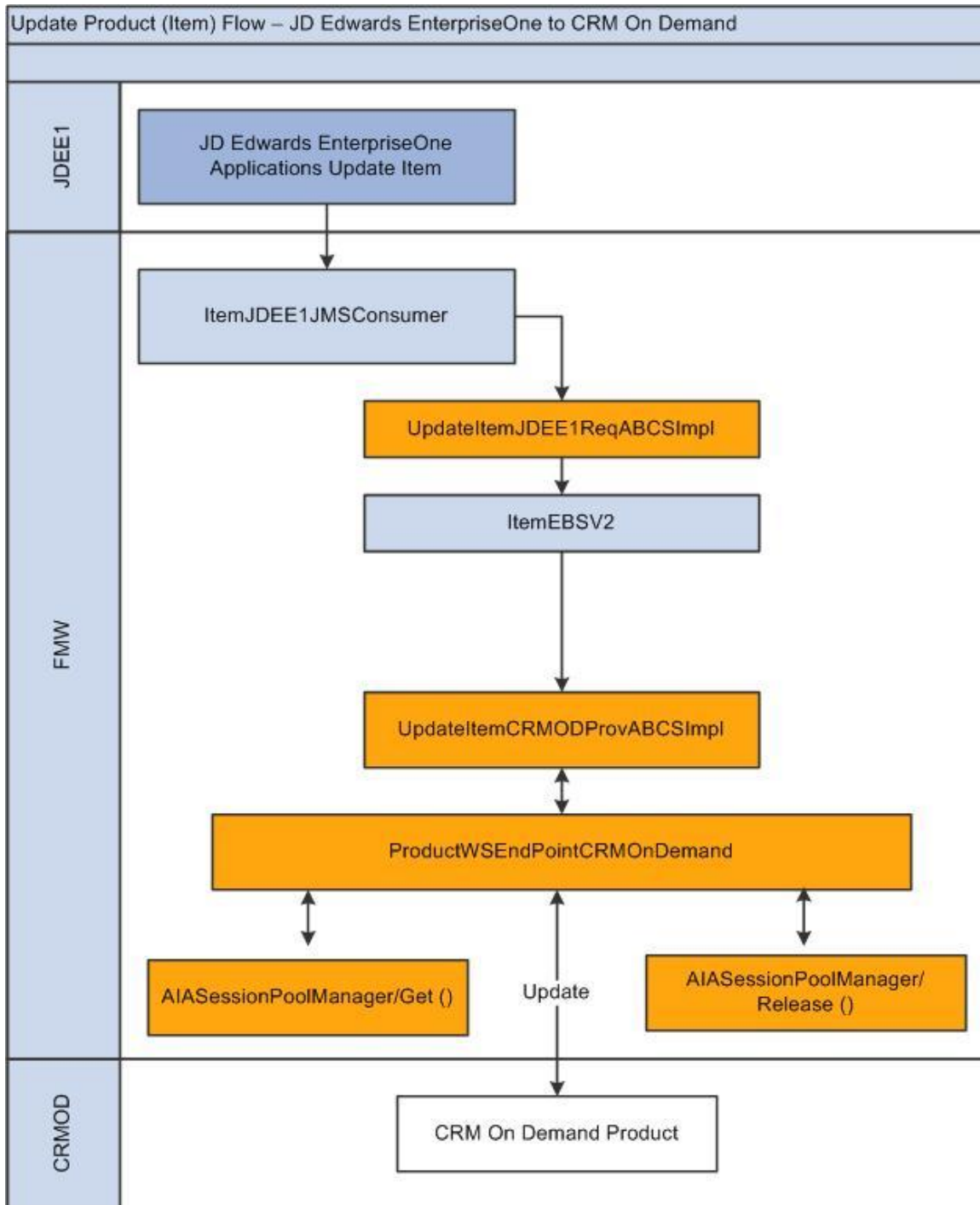
- The update of an existing JD Edwards EnterpriseOne item results in the update of the corresponding product record in CRM On Demand.

Interfaces

This integration flow uses these interfaces:

- JD Edwards EnterpriseOne RTE RTIMOUT
- ItemJDEE1JMSConsumer
- UpdateItemJDEE1ReqABCImpl
- ItemEBSV2
- UpdateItemCRMODProvABCImpl
- ProductWSEndpointCRMONDemand
- CRM On Demand web service ProductWS_ProductUpdate

This diagram illustrates the update product from JD Edwards EnterpriseOne to CRM On Demand flow:



Update product from JD Edwards EnterpriseOne to CRM On Demand process flow

Program Logic

When you initiate the update product process from JD Edwards EnterpriseOne, these events occur:

1. When you update an existing item record in JD Edwards EnterpriseOne, the RTERTIMOUT is triggered.
2. RTIMOUT writes the updated item record to the F90710 table.
3. The transaction server in JD Edwards EnterpriseOne receives the ABM UpdateltemJDEE1ABM and writes it to the AIA_ITEMJDEE1JMSQUEUE.
4. The consumer, ItemJDEE1JMSConsumer, picks up the ABM and routes it to the appropriate ABCS, in this case, the UpdateltemJDEE1ReqABCImpl.
5. The UpdateltemJDEE1ReqABCImpl determines whether the EnterpriseOne side of the cross-reference record.

If the record exists, it transforms the UpdateltemJDEE1ABM into the common message format of an EBM, in this case, the UpdateltemRequestEBM, with the retrieved common cross-reference value.

The UpdateltemJDEE1ReqABCImpl also creates the EnterpriseOne side of the necessary cross-reference records.

6. The EBM is then sent to the EBS ItemEBSV2.
7. The ItemEBSV2 routes the EBM to the CRM On Demand ABCS, in this case, the UpdateltemCRMModProvABCImpl.
8. The UpdateltemCRMModProvABCImpl determines whether the CRM On Demand side of the cross-reference record exists.
9. If the record exists, the service transforms the EBM into a CRM On Demand ABM format with the retrieved cross-reference record.
10. The ABM is then routed to the utility ProductWSEndPointCRMOnDemand, which establishes a session with CRM On Demand, transforms the ABM into an input message, and calls the CRM On Demand web service ProductWS_ProductUpdate to update the record in the CRM On Demand database.
11. The ProductWSEndPointCRMOnDemand utility then releases the session upon the ProductWS_ProductUpdate web service response.

Deleting Product in JD Edwards EnterpriseOne and Synchronizing to CRM On Demand

The delete product integration flow is initiated in JD Edwards EnterpriseOne when an existing item (product) record is deleted from the database.

The business process for deleting products in JD Edwards EnterpriseOne and synchronizing to CRM On Demand is:

- When an existing item record is deleted in JD Edwards EnterpriseOne and removed from the database, CRM On Demand must be informed.

Note: This event is published only if the JD Edwards EnterpriseOne RTE RTIMOUT is activated.

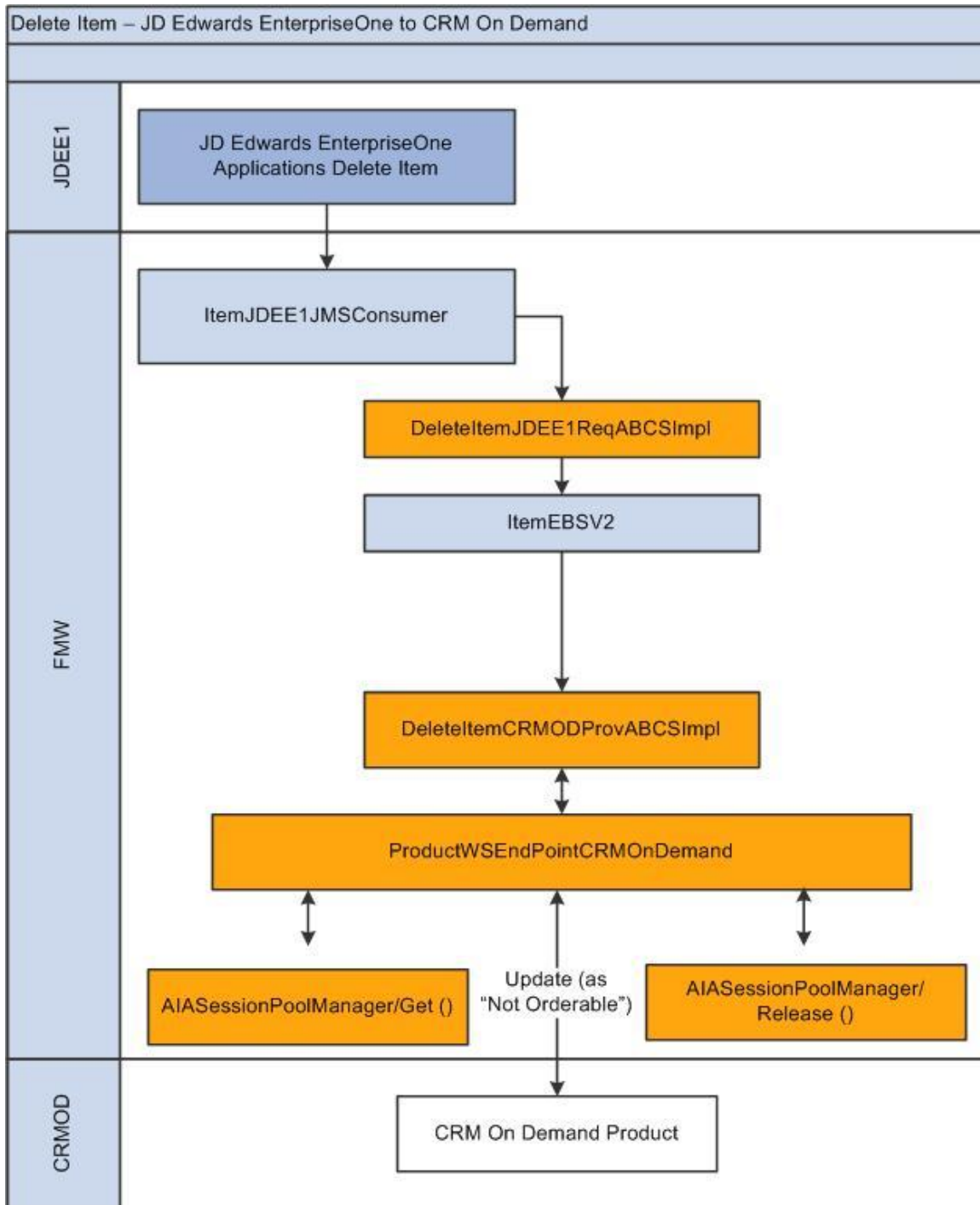
- The deletion of a JD Edwards EnterpriseOne item results in the corresponding product record in CRM On Demand being updated with a status of Not Orderable.

Interfaces

This integration flow uses these interfaces:

- JD Edwards EnterpriseOne RTE RTIMOUT
- ItemJDEE1JMSConsumer
- DeleteItemJDEE1ReqABCImpl
- ItemEBSV2
- DeleteItemCRMODProvABCImpl
- ProductWSEndpointCRMONDemand
- CRM On Demand web service ProductWS_ProductUpdate

This diagram illustrates the delete product from JD Edwards EnterpriseOne to CRM On Demand flow:



Delete product from JD Edwards EnterpriseOne to CRM On Demand process flow

Program Logic

When you initiate the delete product process from JD Edwards EnterpriseOne, these events occur:

1. When you delete an existing item record from JD Edwards EnterpriseOne, the RTE RTIMOUT is triggered.
2. RTIMOUT writes the deleted item record to the F90710.
3. The transaction server in JD Edwards EnterpriseOne receives the ABM DeleteltemJDEE1ABM and writes it to the AIA_ITEMJDEE1JMSQUEUE.
4. The consumer, ItemJDEE1JMSConsumer, picks up the ABM and routes it to the appropriate ABCS, in this case, the DeleteltemJDEE1ReqABCSImpl.
5. TheDeleteltemJDEE1ReqABCSImpl determines whether the EnterpriseOne side of the cross-reference record exists.

If the record exists, it transforms the DeleteltemJDEE1ABM into the common message format of an EBM, in this case, the DeleteltemRequestEBM.

6. The EBM is then sent to the EBS ItemEBSV2.
7. The ItemEBSV2 routes the EBM to the CRM On Demand ABCS, in this case, the DeleteltemCRMODProvABCSImpl.
8. The DeleteltemCRMODProvABCSImpl determines whether the CRM On Demand side of the cross-reference exists.

If the record exists, it transforms the EBM into a CRM On Demand ABM format with the retrieved cross-reference records.

9. The ABM is then routed to the utility ProductWSEndPointCRMONDemand, which establishes a session with CRM On Demand, transforms the ABM into an input message, and calls the CRM On Demand web service ProductWS_ProductUpdate to update the record in the CRM On Demand database.

The Integration Status for the record is changed to Sync OFF, and the record is changed from Orderable to Not Orderable.

10. The ProductWS_ProductUpdate web service returns the updated product ID to the ProductWSEndPointCRMONDemand utility, which releases the established session and sends the product ID to the DeleteltemCRMODProvABCSImpl.
11. The DeleteltemCRMODProvABCSImpl deletes the cross-reference record with the product ID.

Core AIA Components

The product process integration uses these core AIA components:

- ItemEBSV2
- ItemEBO
- ItemEBM
- CreateltemRequestEBM

- UpdateItemRequestEBM
- DeleteItemRequestEBM
- SyncItemListRequestEBM

The core EBO and EBM XSD files can be located by EBO within this parent folder:

\$AIA_HOME/AIAMetaData/AIAComponents/EnterpriseObjectLibrary/Core/EBO/

The core EBS WSDL files can be located by EBO within this parent folder:

\$AIA_HOME/AIAMetaData/AIAComponents/EnterpriseBusinessServiceLibrary/Core/EBO/

For detailed documentation about 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 Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Configuring and Using Oracle Enterprise Repository as the Oracle AIA SOA Repository."

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

For more information, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Understanding Extensibility."

Integration Services

These services are delivered with this integration:

- ItemEBSV2
- CreateItemJDEE1ReqABCImpl
- UpdateItemJDEE1ReqABCImpl
- DeleteItemJDEE1ReqABCImpl
- SyncItemListJDEE1ReqABCImpl
- ItemJDEE1JMSConsumer
- ItemExtractJDEE1Consumer
- CreateItemCRMOPProvABCImpl
- UpdateItemCRMOPProvABCImpl
- DeleteItemCRMOPProvABCImpl
- SyncItemListCRMOPProvABCImpl
- ProductWSEndPointCRMOnDemand

- SyncItemCRMODRoutingService

Many of the services in this section include preprocesses to ensure that ABC services are extensible.

For more information, see Oracle *Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Understanding Extensibility.”

For more information, see Oracle *Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Configuring and Using Oracle Enterprise Repository as the Oracle AIA SOA Repository.”

ItemEBSV2

The ItemEBSV2 Enterprise Business Service exposes all of the enterprise operations that can be performed with an item enterprise object. The ItemEBSV2 will be implemented as a lightweight mediator routing service. The ItemEBSV2 EBS provides these operations:

- CreateItem
- UpdateItem
- DeleteItem
- SyncItemList

For more information, see Oracle *Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Designing and Developing Enterprise Business Services.”

For more information, see Oracle *Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Understanding Enterprise Business Services.”

Routing Rules

Most of the operations that are associated with the ItemEBSV2 provide simple pass-through functionality to an appropriate provider ABCS implementation. In such cases, the only program logic for the operation is the routing rules. The routing rules specify which target provider ABCS to route the message to.

This table lists the standard routing rules for these operations:

Operation	Routed To
CreateItem	CreateItemCRMODProvABCImpl
UpdateItem	UpdateItemCRMODProvABCImpl
DeleteItem	DeleteItemCRMODProvABCImpl
SyncItemList	SyncItemCRMODRoutingService

CreateItemJDEE1ReqABCSImpl

The CreateItemJDEE1ReqABCSImpl service transforms the CreateItemJDEE1ABM messages into the CreateItemEBM message. The service generates the common ID for the EnterpriseOne Short Item Number, adds it to the cross-reference records, and invokes the CreateItem EBS operation. It will be implemented as a BPEL service.

This interface service provides one asynchronous, one-way operation:
CreateItemJDEE1ReqABCSImpl

Note: Assume that the CreateItemJDEE1ABMs are items that have just been added to JD Edwards EnterpriseOne. All output values from JD Edwards EnterpriseOne by the RTIMOUT RTE are mapped to the CreateItemEBM, regardless of whether they are consumed by CRM On Demand.

These preprocesses are included in the CreateItemJDEE1ReqABCSImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

Transaction Considerations

Consider these items when using the CreateItemJDEE1ReqABCSImpl service:

- As CreateItemJDEE1ReqABCSImpl is invoked within ItemJDEE1Consumer, it will join ItemJDEE1Consumer transactions when the following properties are set in the client partner link:

```
<property name="cacheConnections">false</property> <property
name="transaction">participate</property>
```

- As ItemEBSV2 is invoked within CreateItemJDEE1ReqABCSImpl, it will join ItemJDEE1Consumer transactions when the partner link property of the Item EBS is set up with: <property name="cacheConnections">false</property>

```
<property name="transaction">participate</property> <property
name="preferredPort">__esb_ItemEBSV2_ItemEBS</property>
```

- Process level configurations are required to ensure the instance rollback and bypass of the dehydration store.

You should set up the following properties in Deployment Descriptor Properties of the CreateItemJDEE1ReqABCSImpl:

```
<configurations> <property name="transaction" encryption="plaintext">participate</property>

<property name="deliveryPersistPolicy">off.immediate</property> </configurations>
```

- The cross-reference Xpath functions that add, modify, or delete data are transactional in nature and follow the transactional behavior of the data source that is used by that cross-reference.

To ensure this behavior, configure the data-source.xml so that the managed-data-source element has the tx-level attribute set to global. For example:

```
<managed-data-source connection-pool-name="soademo_ppol" jndi-name="jdbc⇒
/AlADatasource" name="AlADatasource" tx-level="global" />
```

For more information about transaction processing, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*.

UpdateItemJDEE1ReqABCSImpl

The UpdateItemJDEE1ReqABCSImpl service transforms the UpdateItemJDEE1ABM message into the UpdateItemEBM message. The service locates the Common ID for the item from the cross-reference and invokes the UpdateItem EBS operation. It will be implemented as a BPEL service.

This interface service provides one asynchronous, one-way operation:
UpdateItemJDEE1ReqABCSImpl

These preprocesses are included in the UpdateItemJDEE1ReqABCSImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

Transaction Considerations

Consider these items when using the UpdateItemJDEE1ReqABCSImpl service:

- As UpdateItemJDEE1ReqABCSImpl is invoked within ItemJDEE1Consumer, it will join ItemJDEE1Consumer transactions when the following properties are set in the client partner link:

```
<property name="cacheConnections">false</property>
```

```
<property name="transaction">participate</property>
```

As ItemEBSV2 is invoked within UpdateItemJDEE1ReqABCSImpl, it will join ItemJDEE1Consumer transactions when the partner link property of the Item EBS is set up with:

```
<property name="cacheConnections">false</property>
```

```
<property name="transaction">participate</property>
```

```
<property name="preferredPort">__esb_ItemEBSV2_ItemEBS</property>
```

- Process level configurations are required to ensure the instance rollback and bypass of the dehydration store.

You should set up the following properties in Deployment Descriptor Properties of the UpdateItemJDEE1ReqABCSImpl:

```
<configurations> <property name="transaction" encryption="plaintext">participate</property>
<property name="deliveryPersistPolicy">off.immediate</property> </configurations>
```

- The cross-reference Xpath functions that add, modify, or delete data are transactional in nature and follow the transactional behavior of the data source that is used by that cross-reference.

To ensure this behavior, configure the data-source.xml so that the managed-data-source element has the tx-level attribute set to global. For example:

```
<managed-data-source connection-pool-name="soademo_ppol" jndi-
name="jdbc⇒ /AIADatasource" name="AIADatasource" tx-level="global"
/>
```

For more information about transaction processing, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*.

DeleteltemJDEE1ReqABCImpl

The DeleteltemJDEE1ReqABCImpl service transforms the DeleteltemJDEE1ABM message into the DeleteltemEBM message. The service locates the Common ID for the item from the cross-reference and invokes the Deleteltem EBS operation. It will be implemented as a BPEL service.

This interface service provides one asynchronous, one-way operation:

DeleteltemJDEE1ReqABCImpl

These preprocesses are included in the DeleteltemJDEE1ReqABCImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

For more information, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Understanding Extensibility."

Transaction Considerations

Consider these items when using the DeleteltemJDEE1ReqABCImpl service:

- As DeleteltemJDEE1ReqABCImpl is invoked within ItemJDEE1Consumer, it will join ItemJDEE1Consumer transactions when the following properties are set in the client partner link:

```
<property name="cacheConnections">false</property>
```

```
<property name="transaction">participate</property>
```

- As ItemEBSV2 is invoked within DeleteltemJDEE1ReqABCImpl, it will join

ItemJDEE1Consumer transactions when the partner link property of the Item EBS is set up with: `<property name="cacheConnections">false</property>`

`<property name="transaction">participate</property>`

`<property name="preferredPort">__esb_ItemEBSV2_ItemEBS</property>`

- Process level configurations are required to ensure the instance rollback and bypass of the dehydration store.

You should set up the following properties in Deployment Descriptor Properties of the `DeleteltemJDEE1ReqABCSImpl`:

`<configurations> <property name="transaction" encryption="plaintext">participate</property>`

`<property name="deliveryPersistPolicy">off.immediate</property> </configurations>`

- The cross-reference Xpath functions that add, modify, or delete data are transactional in nature and follow the transactional behavior of the data source that is used by that cross-reference.

To ensure this behavior, configure the `data-source.xml` so that the `managed-data-source` element has the `tx-level` attribute set to `global`. For example:

```
<managed-data-source connection-pool-name="soademo_ppol" jndi-
name="jdbc⇒ /AIADatasource" name="AIADatasource" tx-level="global"
/>
```

For more information about transaction processing, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*.

SyncItemJDEE1ReqABCSImpl

This service will transform the `JDEE1messages` into the appropriate `SyncItem` EBM format and invoke the `SyncItem` EBS operation.

The `SyncItemJDEE1ReqABCSImpl` service transforms the `SyncItemJDEE1ABM` message into the `SyncItemEBM` message. The service populates or reads the cross-reference table, generating or fetching the Common ID for the item, as necessary. The service then invokes the `SyncItem` EBS operation. It will be implemented as a BPEL service.

This interface service provides one asynchronous, one-way operation: `SyncItemJDEE1ReqABCSImpl`

These preprocesses are included in the `SyncItemJDEE1ReqABCSImpl` to ensure that ABC services are extensible:

- `PreprocessABM`
- `PreprocessEBM`

No post processes are included, because no response message is returned to the caller.

For more information, see Oracle *Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Understanding Extensibility.”

ItemJDEE1JMSConsumer

The ItemExtractJDEE1JMSConsumer service pulls messages from a JMS queue to begin the process of adding, updating, or deleting an item from JD Edwards EnterpriseOne. This service has no public interface. An instance of this service is created only when a message is pulled from the queue.

ItemExtractJDEE1Consumer

The mediator composite ItemExtractJDEE1Consumer contains two adapter services:

- ItemExtractJDEE1FTPConsumer_ep is an FTP consumer for consuming customer extracts from EnterpriseOne
- ItemExtractJDEE1FileConsumer_ep is a file consumer for consuming customer extracts from EnterpriseOne

ItemExtractJDEE1FTPConsumer_ep

The ItemExtractJDEE1FTPConsumer_ep adapter process retrieves and debatches xml files that are created when EnterpriseOne batch extract programs are processed. These files contain information for multiple items. The R4101D2 batch program generates an xml file with several items that this service will pick up for processing. This service has no public interface. An instance for this service is only created when a message is pulled from the queue.

This service uses an FTP adapter to pull the xml file directly from the EnterpriseOne server for processing. An FTP Server must be configured on the EnterpriseOne Enterprise Server. The FTP adapter must be configured to use the FTP connection that is set up on the EnterpriseOne Enterprise Server. Additionally, the PhysicalDirectory property for this service must be set up with the location of the XML files.

This service has several configurable mediator properties:

- UseHeaders: false
- Recursive: false
- FileType: ascii
- MinimumAge: 0
- IncludeFiles: R4101D2.**.xml
- PollingFrequency: Interval in seconds to check the arrival of SyncCustomer input file. The default value for this property is 30 seconds.
- PhysicalDirectory: Location of the SyncCustomer input file in the SOA Application Server. You must update this property with the file location.
- DeleteFile: true

- PublishSize: Size of the batch that the incoming file is to be split into (20).

Note: You should use a value of 20 or less for this property because CRM On Demand has a limitation of 20 records when processing a batch insert.

For more information, see Chapter 6: Configuring the Lead to Order PIP > Setting Up Batch Processing Information.

ItemExtractJDEE1FileConsumer_ep

The ItemExtractJDEE1FileConsumer_ep adapter process retrieves and debatches xml files that are created when EnterpriseOne batch extract programs are processed. These files are retrieved from the <AIA_HOME>/JDEE1_In folder on the WebLogic Server, and they contain information for multiple items. The R4101D2 batch program generates an xml file with several items that this service will pick up for processing. No public interface for this service exists. An instance for this service is only created when a message is pulled from the queue.

Unlike the ItemExtractJDEE1FTPConsumer_ep service, this service does not use an FTP adapter. However, the PhysicalDirectory property for this service must be set up with the location of the XML files. The XML files must be moved to a folder on the SOA Server for this service to function properly.

This service has several configurable mediator properties:

- DeleteFile: true
- PollingFrequency: Interval in seconds to check the arrival of Sync Customer input file. The default value for this property is 30 seconds.
- UseHeaders: false
- IncludeFiles: R4101D2.**.xml
- MinimumAge: 0
- PhysicalDirectory: Location of the Sync Customer input file in the SOA Application Server. You must update this property with the file location.
- PublishSize: Size of the batch that the incoming file is to be split into (20).
- Recursive: false

Note: You should use a value of 20 or less for this property because CRM On Demand has a limitation of 20 records when processing a batch insert.

For more information, see *Enterprise Service Bus Quick Start Guide 10g*, “Creating, Configuring, and Managing an Oracle Enterprise Service Bus.”

CreateItemCRMODProvABCSImpl

The CreateItemCRMODProvABCSImpl service transforms the CreateItemEBM messages into the CRM On Demand Product Insert format and invokes the ProductWSEndPointCRMODOnDemand BPEL flow with the Insert operation. This BPEL flow calls the CRM On Demand ProductWS_ProductInsert web service, which inserts a product record into the CRM On Demand database. The Integration Status field for the inserted record is set to *Sync ON*. The service will be implemented as an asynchronous BPEL service.

This interface service provides one asynchronous operation: CreateItemCRMODProvABCSImpl

These preprocesses are included in the CreateItemCRMODProvABCSImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

For more information, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Understanding Extensibility.”

Transaction Considerations

Consider these items when using the CreateItemCRMODProvABCSImpl service:

- As CreateItemCRMODProvABCSImpl is invoked by ItemEBSV2, it will join the ItemEBSV2 transaction when the following properties are set in the client partner link:


```
<property name="cacheConnections">false
</property> <property name="transaction">participate</property>
```
- To include ItemEBSV2 routing into the same transaction, the Item EBS routing execution to be configured as Synchronous and in the EBS Routing Service, add *InvocationMode=local* for the Endpoint property.
- Only Client partner link in CreateItemCRMODProvABCSImpl will be enabled to participate in the transaction. ProductWSEndpointCRMODOnDemand will not be included in the transaction.
- The cross-reference Xpath functions that add, modify, or delete data are transactional in nature and follow the transactional behavior of the data source that is used by that cross-reference.

To ensure this behavior, configure the data-source.xml so that the managed-data-source element has the tx-level attribute set to global. For example:

```
<managed-data-source connection-pool-name="soademo_ppol" jndi-
name="jdbc⇒ /AIADatasource" name="AIADatasource" tx-level="global"
/>
```


For more information about transaction processing, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*.

UpdateItemCRMODProvABCImpl

The UpdateItemCRMODProvABCImpl service determines whether the CRM On Demand side of the cross-reference records exists. If the record exists, the service transforms the UpdateItemEBM messages into the CRM On Demand Product Update format and invokes the ProductWSEndPointCRMODOnDemand BPEL flow with the Update operation. This BPEL flow calls the CRM On DemandProductWS_ProductUpdate web service, which updates existing product records in the CRM On Demand database. The Integration Status field for the existing record must be set to *Sync ON* for the update to occur. If the update fails, the service invokes the ProductWSEndPointCRMODOnDemand BPEL flow, with *Update* operation, updates the Integration Status field to Sync FAILED, and updates the Integration Message field with the error message.

The service will be implemented as an asynchronous BPEL service.

This interface service provides one asynchronous operation: UpdateItemCRMODProvABCImpl

These preprocesses are included in the UpdateItemCRMODProvABCImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

For more information, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Understanding Extensibility."

Transaction Considerations

Consider these items when using the UpdateItemCRMODProvABCImpl service:

- As UpdateItemCRMODProvABCImpl is invoked by ItemEBSV2, it will join the ItemEBSV2 transaction when the following properties are set in the client partner link:


```
<property name="cacheConnections">false</property>
```

```
<property name="transaction">participate</property>
```
- To include ItemEBSV2 routing into the same transaction, the Item EBS routing execution to be configured as *Synchronous* and in the EBS Routing Service, add *InvocationMode=local* for the Endpoint property.
- Only Client partner link in UpdateItemCRMODProvABCImpl will be enabled to participate in the transaction. ProductWSEndpointCRMODOnDemand will not be included in the transaction.
- The cross-reference Xpath functions that add, modify, or delete data are transactional in nature and follow the transactional behavior of the data source that is used by that cross-reference.

To ensure this behavior, configure the data-source.xml so that the managed-data-source element has the tx-level attribute set to global. For example:

```
<managed-data-source connection-pool-name="soademo_ppol" jndi-
name="jdbc⇒ /AIADatasource" name="AIADatasource" tx-level="global"
/>
```

For more information about transaction processing, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*.

DeleteltemCRMODProvABCImpl

The DeleteltemCRMODProvABCImpl service transforms the DeleteltemEBM messages into the DeleteltemABM format. The service retrieves the product ID from the cross-reference table and sets the Integration Status field value to Sync OFF. The service then invokes the ProductWSEndPointCRMONDemand BPEL flow with the Delete operation. This BPEL flow calls the CRM On Demand ProductWS_ProductUpdate web service, which updates the existing product records in the CRM On Demand database with the status Not Orderable. If the update is successful, the cross-reference record for the product is deleted. If the update fails, the service invokes the ProductWSEndPointCRMONDemand BPEL flow with the Update operation, which updates the Integration Status field with Sync FAILED and updates the Integration Message field with the error message.

The service will be implemented as an asynchronous BPEL service.

This interface service provides one asynchronous operation: DeleteltemCRMODProvABCImpl

These preprocesses are included in the DeleteltemCRMODProvABCImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

For more information, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Understanding Extensibility."

Transaction Considerations

Consider these items when using the DeleteltemCRMODProvABCImpl service:

- As DeleteltemCRMODProvABCImpl is invoked by ItemEBSV2, it will join the ItemEBSV2 transaction when the following properties are set in the client partner link:

```
<property name="cacheConnections">false</property>
```

```
<property name="transaction">participate</property>
```

- To include ItemEBSV2 routing into the same transaction, the Item EBS routing execution to be configured as Synchronous and in the EBS Routing Service, add InvocationMode=local for the Endpoint property.

- Only Client partner link in CreateItemCRMODProvABCSImpl will be enabled to participate in the transaction. ProductWSEndpointCRMOnDemand will not be included in the transaction.
- The cross-reference Xpath functions that add, modify, or delete data are transactional in nature and follow the transactional behavior of the data source that is used by that cross-reference.

To ensure this behavior, configure the data-source.xml so that the managed-data-source element has the tx-level attribute set to global. For example:

```
<managed-data-source connection-pool-name="soademo_ppol" jndi-
name="jdbc⇒ /AIADatasource" name="AIADatasource" tx-level="global"
/>
```

For more information about transaction processing, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*.

SyncItemListCRMODProvABCSImpl

The SyncItemListCRMODProvABCSImpl service transforms the SyncItemListEBM messages into the CRM On Demand UpsertItem (Update or Insert) ABM format. The service cycles through the SyncItemList EBM and determines whether the CRM On Demand side of the cross-reference exists for each item. If the record exists, the service determines that it is an update. If it does not exist, it is an insert. If you are inserting a new record, the system sets the Integration Status field to Sync ON.

The service then invokes the ProductWSEndPointCRMOnDemand BPEL flow with the Upsert (update or insert) operation. This BPEL flow calls the CRM On Demand ProductWS_ProductInsertOrUpdate web service, which inserts or updates product records in the CRM On Demand database. If the update is successful, the cross-reference records for the product are created as necessary. If the update fails, all of the records in the batch are rolled back from CRM On Demand and the cross-reference table. The Integration status is not updated for all of the records in the batch. However, the error that the system generates includes the information for the first error in the batch that caused the failure.

The service will be implemented as an asynchronous BPEL service.

This interface service provides one asynchronous operation: SyncItemListCRMODProvABCSImpl

These preprocesses are included in the SyncItemListCRMODProvABCSImpl to ensure that ABC services are extensible:

- PreprocessABM
- PreprocessEBM

No post processes are included, because no response message is returned to the caller.

For more information, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Understanding Extensibility."

Transaction Considerations

Consider these items when using the SyncItemListCRMODProvABCSImpl service:

- As SyncItemListCRMODProvABCSImpl is invoked by SyncItemCRMODRoutingService, it will join the SyncItemCRMODRoutingService transaction when the following properties are set in the client partner link:

```
<property name="cacheConnections">false</property>
```

```
<property name="transaction">participate</property>
```

- To include SyncItemCRMODRoutingService routing into the same transaction, the SyncItemCRMODRoutingService routing execution to be configured as Synchronous and in the Routing Service, add InvocationMode=local" for the Endpoint property.
- All partner links with the property set up as transaction = participate are included in the SyncItemListCRMODProvABCSImpl transactions.
- The cross-reference Xpath functions that add, modify, or delete data are transactional in nature and follow the transactional behavior of the data source that is used by that cross-reference.

To ensure this behavior, configure the data-source.xml so that the managed-data-source element has the tx-level attribute set to global. For example:

```
<managed-data-source connection-pool-name="soademo_ppol" jndi-
name="jdbc⇒ /AIADatasource" name="AIADatasource" tx-level="global"
/>
```

ProductWSEndpointCRMONDemand

The ProductWSEndpointCRMONDemand utility BPEL flow is invoked by the four CRM On Demand provider ABCS services to retrieve session, release session, and conduct insert, update, delete, and upsert of CRM On Demand products.

Request message:

- OD Host ID
- Operation - Insert/Update/Delete/Upsert
- OD Product ABM

Response message:

- Product Response ABM
- Error Status
- Error Message

SyncItemCRMODRoutingService

This service is invoked from ItemEBSV2 during the SyncItemList operation. It routes messages to the SyncItemListCRMODProvABCSImpl service. This service has resequencing enabled. To review additional information about resequencing:

For more information, see Chapter 6: Configuring the Lead to Order PIP > Setting Up Batch Processing Information.

Chapter 5: Process Integration for Order Management

This chapter provides an overview of the process integration for order management and discusses:

- Generating a JD Edwards EnterpriseOne sales quote or sales order from a CRM On Demand opportunity
- Viewing JD Edwards EnterpriseOne sales quotes and sales orders from CRM On Demand
- Core Application Integration Architecture (AIA) components
- Integration services

Overview

The process integration for order management between JD Edwards EnterpriseOne and CRM On Demand supports the following integration flows:

- Create an opportunity in CRM On Demand and generate a sales quote in JD Edwards EnterpriseOne.

This flow enables you to create a sales opportunity in CRM On Demand, and attach products to that opportunity. You can then generate a sales quote in JD Edwards EnterpriseOne directly from the CRM On Demand opportunity. If the opportunity includes products that were synchronized from JD Edwards EnterpriseOne, those products, along with the pricing information from JD Edwards EnterpriseOne, are included in the sales quote. This flow uses CRM On Demand web links to access JD Edwards EnterpriseOne, and EnterpriseOne business functions and business services to process the opportunity data.

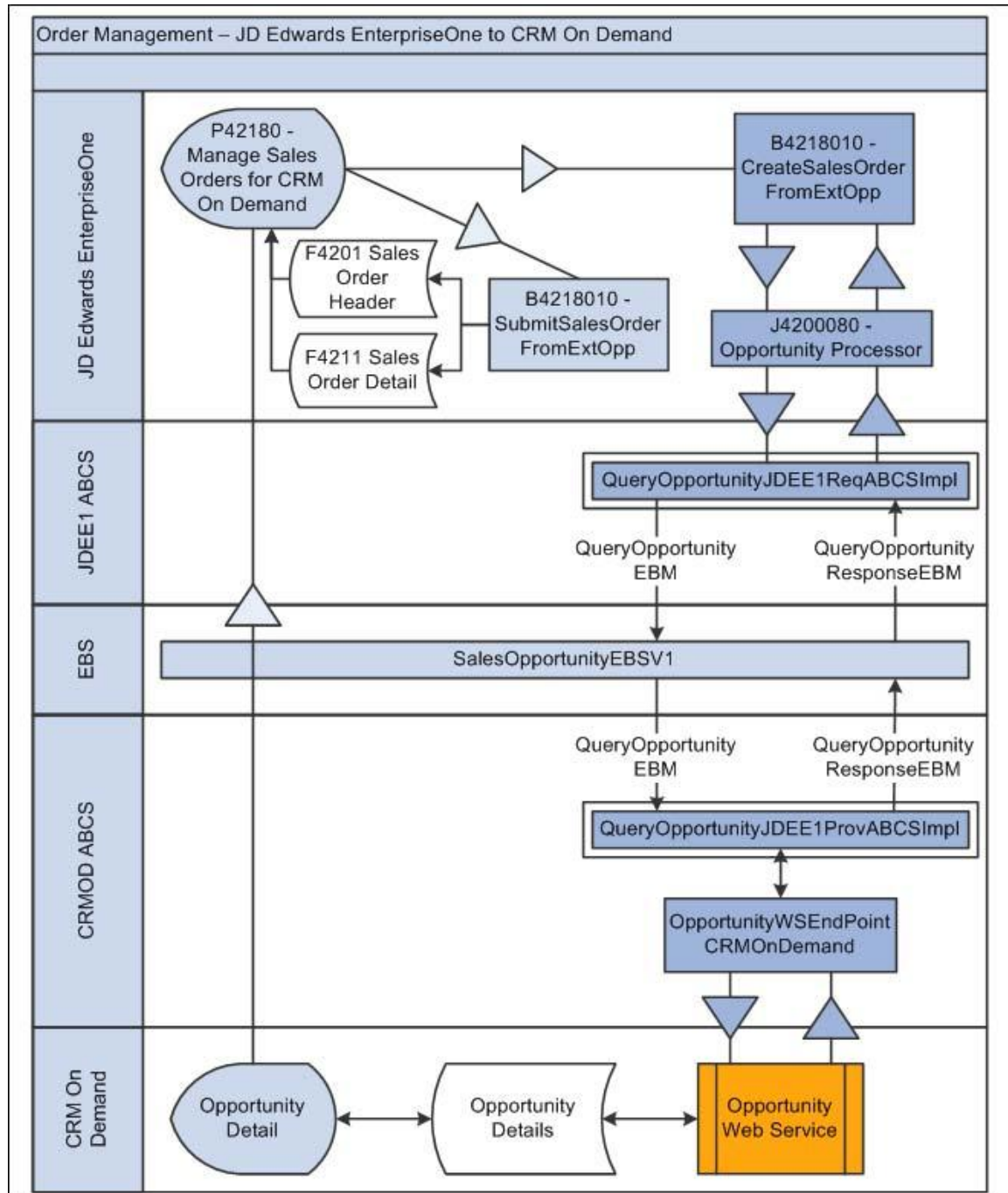
- Create an opportunity in CRM On Demand and generate a sales order in JD Edwards EnterpriseOne.

This flow enables you to create a sales opportunity in CRM On Demand, and attach products to that opportunity. You can then generate a sales quote in JD Edwards EnterpriseOne directly from the CRM On Demand opportunity. If the opportunity includes products that were synchronized from JD Edwards EnterpriseOne, those products, along with the pricing information from JD Edwards EnterpriseOne, are included in the sales quote. This flow uses CRM On Demand web links to access JD Edwards EnterpriseOne, and EnterpriseOne business functions and business services to process the opportunity data.

- View a JD Edwards EnterpriseOne sales quote or sales order from CRM On Demand.

This flow enables you to view quotes and sales orders that exist in JD Edwards EnterpriseOne directly from a CRM On Demand opportunity. Users can view all existing quotes or sales orders that are associated with the customer on the selected opportunity. This flow uses CRM On Demand web links to access the JD Edwards EnterpriseOne application, and EnterpriseOne business functions and business services to process opportunity data.

This diagram illustrates the order integration process flow:



Order integration process flow

Solution Assumptions and Constraints

These are the solution assumptions and constraints for the order management integration:

1. To generate a sales quote or sales order from a CRM On Demand opportunity, the opportunities must include a customer account number that has been synchronized to JD Edwards EnterpriseOne.

If the opportunity includes an account number that is not valid in JD Edwards EnterpriseOne, then the system will not generate a quote or sales order.
2. All of the products that are included on a CRM On Demand opportunity must be valid JD Edwards EnterpriseOne items in order to generate a quote or sales order.

If any of the products that are included on the opportunity are not valid in JD Edwards EnterpriseOne, then the system will not generate a quote or sales order.
3. If a product is entered without a quantity, then the JD Edwards default value of 1 will be used to create the quote or sales order.
4. The unit of measure that is associated with the item is taken from the JD Edwards EnterpriseOne item record.
5. Assume that all maintenance of sales orders and quotes will be completed within JD Edwards EnterpriseOne.
6. Assume that pricing information has been set up in JD Edwards EnterpriseOne for the products that are included in the opportunity.

For more information, see *JD Edwards EnterpriseOne Sales Order Management Implementation Guide*, “Setting Up Base and Standard Pricing.”

Generating JD Edwards EnterpriseOne Sales Quote or Sales Order from CRM On Demand Opportunity

The generate EnterpriseOne sales quote/sales order integration flow is initiated from the Opportunity page of CRM On Demand. From this page, a user clicks the sales order web link to access the Sales Order from CRM On Demand Opportunity (P42180) program in JD Edwards EnterpriseOne. The system displays the P42180, from which the user can generate a sales quote or sales order in JD Edwards EnterpriseOne.

The business process for generating EnterpriseOne sales quotes from CRM On Demand is:

- A CRM On Demand user creates a sales opportunity that includes:
 - A valid JD Edwards EnterpriseOne customer.
 - Only valid JD Edwards EnterpriseOne items.

The opportunity cannot include any items that are not valid in JD Edwards EnterpriseOne.

- After the opportunity is saved in CRM On Demand, the user clicks the sales order web link to access the Sales Order from CRM On Demand Opportunity (P42180) program in JD

Edwards EnterpriseOne.

- The system displays the P42180 program, including the opportunity ID, opportunity name, and customer name on the form.
- The user clicks one of these buttons:
 - Create Quote Order
 - Create Sales Order
- Depending on a processing option setting in the P42180 program, the user confirms that they want to generate an EnterpriseOne quote or sales order.
- The system sends a query back to CRM On Demand with the opportunity ID and fetches item and quantity information.

This data is sent back to JD Edwards EnterpriseOne.

- The quote or sales order is generated in JD Edwards EnterpriseOne.

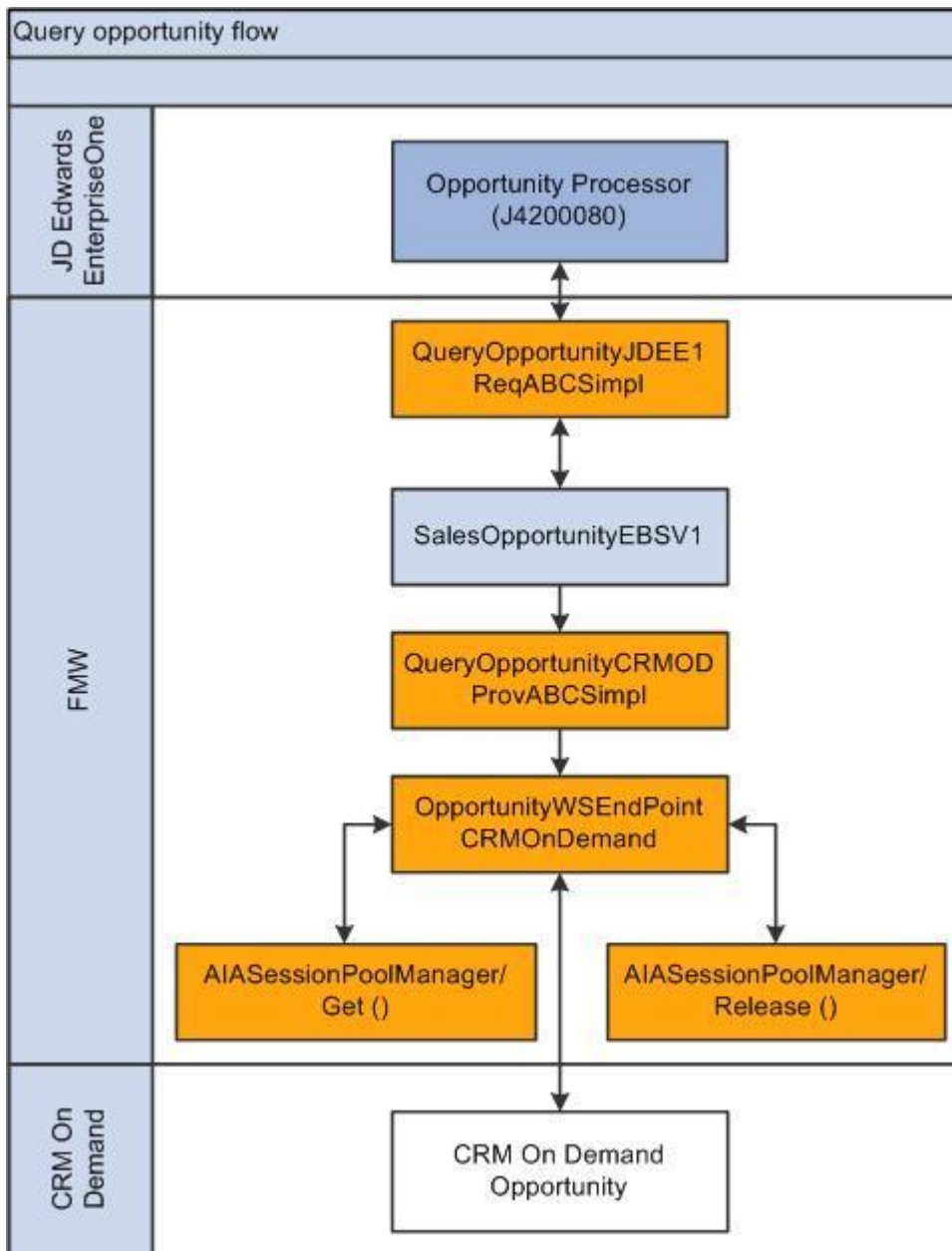
Note: The user must click Find to display the newly created quote or sales order record on the form. If the record does not appear, check the messages in the JD Edwards EnterpriseOne Employee Work Center to determine whether the process ended in error.

Interfaces

This integration flow uses these interfaces:

- Sales Order from CRM On Demand Opportunity (P42180)
- JD Edwards EnterpriseOne business service OpportunityProcessor (J4200080)
- QueryOpportunityJDEE1ReqABCSImpl
- SalesOpportunityEBSV1
- QueryOpportunityCRMODProvABCSImpl
- OpportunityWSEndPointCRMONDemand
- OpportunityWS_OpportunityQueryPage

This diagram illustrates the query opportunity process:



Query opportunity process flow

Program Logic

After you create an opportunity in CRM On Demand, these events occur to complete the quote generation process:

1. The CRM On Demand user clicks the web link to access the Sales Order from CRM On Demand Opportunity (P42180).
2. The user signs into JD Edwards EnterpriseOne if they have not done so already.
3. The user clicks the Create Sales Quote or Create Sales Order button.

4. The system triggers the CreateSOfromExtOpportunity business function (B4218010), which calls the EnterpriseOne business service OpportunityProcessor (J4200080).
5. The OpportunityProcessor, using the getOpportunity operation, sends a query message back to CRM On Demand.
6. The QueryOpportunityJDEE1ReqABCSImpl service transforms the message into the common message format of an enterprise business message (EBM), in this case, QueryOpportunityEBM.
7. The EBM is received by the enterprise business service (EBS) SalesOpportunityEBSV1.
8. The SalesOpportunityEBSV1 routes the EBM to the CRM On Demand ABCS, in this case, the QueryOpportunityCRMODProvABCSImpl.
9. The QueryOpportunityCRMODProvABCSImpl transforms the EBM into a CRM On Demand ABM format.
10. The ABM is then routed to the utility OpportunityWSEndPointCRMOnDemand, which establishes a session with CRM On Demand, transforms the ABM into an input message, and calls the CRM On Demand web service OpportunityWS_OpportunityQueryPage.
11. The web service retrieves the information from the CRM On Demand opportunity.
12. Using the same services described earlier in this list, the return message is routed back to JD Edwards EnterpriseOne, where a sales quote or sales order is generated.

Viewing JD Edwards EnterpriseOne Sales Quotes and Sales Orders from CRM On Demand

The Lead to Order PIP provides users with the ability to view JD Edwards EnterpriseOne sales quote and sales order records directly from CRM On Demand using web links. Web links are set up with context sensitive parameters that enable an administrator to define:

- The application, form, and version to launch.
- The data to pass to JD Edwards EnterpriseOne.

For the Lead to Order business process, an administrator can configure a link that launches the Sales Order from CRM On Demand Opportunity application (P42180) with certain fields, such as the opportunity name and ID, and customer name and number, prepopulated in the form.

When a user opens the P42180 application, the system can display it in a new browser window, within the current window, or on a custom tab. The instructions included in this documentation specify how to display the application in a new browser window.

The process flow for accessing the P42180 application from CRM On Demand includes these steps:

1. The administrator creates a link in CRM On Demand to access the P42180 application.
2. From CRM On Demand, the user clicks the web link set up to access the P42180 program.
3. The system opens a new browser window to display the JD Edwards EnterpriseOne application.
4. Upon the first invocation of an EnterpriseOne application, the user is required to log in to a valid JD Edwards EnterpriseOne environment.

Upon subsequent invocations, the user sign-in information is cached and no additional log in to is required.

5. The P42180 application is launched, enabling users to review sales order and quote records directly in JD Edwards EnterpriseOne.

The controls for the application are preloaded, based on the form data that is passed through the URL. The user has access to all of the tabs, links, and fields in this application, just as if they had entered the application directly from the EnterpriseOne system.

6. The user finishes viewing the records and clicks the Close button in the P42180 application.

The application closes and the browser is redirected to the URL target destination, as specified in the parameterized URL request.

Before you can access the P42180 application from CRM On Demand, you must set up the web link for sales order integration.

For more information about setting up fields, tabs, and layouts in CRM On Demand, see *CRM On Demand Online Help Release 16*, “Administering Siebel CRM On Demand.”

For more information about using the JD Edwards EnterpriseOne Sales Order Management system, see *JD Edwards EnterpriseOne Sales Order Management Implementation Guide* and Chapter 6: Configuring the Lead to Order PIP > Creating Web Links in CRM On Demand.

Core AIA Components

The order process integration uses these core AIA components:

- OpportunityEBO
- SalesOpportunityEBSV1
- OpportunityEBM
- QueryOpportunityEBM

The core EBO and EBM XSD files can be located by EBO within this parent folder:

\$AIA_HOME/AIAMetaData/AIAComponents/EnterpriseObjectLibrary/Core/EBO/

The core EBS WSDL files can be located by EBO within this parent folder:

\$AIA_HOME/AIAMetaData/AIAComponents/EnterpriseBusinessServiceLibrary/Core/EBO/

For detailed documentation about 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 Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Configuring and Using Oracle Enterprise Repository as the Oracle AIA SOA Repository.”

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

For more information, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Understanding Extensibility.”

Integration Services

This section discusses these services that are used by the order management integration:

- SalesOpportunityEBSV1
- QueryOpportunityJDEE1ReqABCImpl
- QueryOpportunityCRMOPProvABCImpl
- OpportunityWSEndPointCRMONDemand

For more information, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Configuring and Using Oracle Enterprise Repository as the Oracle AIA SOA Repository.”

SalesOpportunityEBSV1

The SalesOpportunityEBSV1 Enterprise Business Service exposes all of the enterprise operations that can be performed with an opportunity enterprise object. The Lead to Order PIP uses only the QueryOpportunity operation, and does not use any other operation provided by the SalesOpportunityEBSV1.

The QueryOpportunity operation provides simple pass-through functionality to a provider ABCS implementation, in this case, the QueryOpportunityCRMOPProvABCImpl. The only program logic for the operation is the routing rules to specify the QueryOpportunityCRMOPProvABCImpl as the target provider ABCS.

The SalesOpportunityEBSV1 is implemented as a lightweight mediator routing service.

For more information, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Designing and Developing Enterprise Business Services.”

For more information, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Understanding Enterprise Business Services.”

QueryOpportunityJDEE1ReqABCImpl

The QueryOpportunityJDEE1ReqABCImpl service receives the query request message in the ABM format from the JD Edwards EnterpriseOne business service, OpportunityProcessor. The service transforms the query request message into the QueryOpportunityReqMsg format and invokes the QueryOpportunity operation on the SalesOpportunityEBSV1 service. The service then receives the query response message in QueryOpportunityRespMsg format, transforms the message into the query response in the format of QueryOpportunityJDEE1ReqABCImplResponseMessage, and returns the message back to the OpportunityProcessor business service.

This service has one operation: QueryOpportunity

The input message must contain the following elements:

- TargetInstanceID
- Environment
- OpportunityIdentification
- OpportunityName

The output message must contain the following elements:

- OpportunityIdentification
- OpportunityHeader
- OpportunityDetailLine

Error Handling

The QueryOpportunityJDEE1ReqABCImpl handles these application errors:

- AIA exception thrown by the SalesOpportunityEBSV1.
- BindingFault exception with invoking SalesOpportunityEBSV1.
- RemoteFault exception with invoking SalesOpportunityEBSV1.
- Other exceptions thrown by the orchestration flow.

The first three errors listed are handled as managed exceptions. The orchestration will produce an error message ID and description in the response message to the OpportunityProcessor business service. Therefore, the calling application displays the errors to the user in EnterpriseOne error format.

Other exceptions thrown by the orchestration flow are handled as unmanaged exceptions. The AIA fault message is handled by the BPEL engine and is available for the business service to process. Failure to find any required CRM On Demand IDs in the cross-reference records is also handled in the BPEL process. The error message provides the common ID, which is not cross-referenced.

QueryOpportunityCRMODProvABCSImpl

The QueryOpportunityCRMODProvABCSImpl service receives the QueryOpportunityEBM from the QueryOpportunityEBS and invokes the first customer extension logic (PreprocessEBM), if configuration of the extension is enabled. The service then converts the EBM to the ABM format, as required by the OpportunityWSEndPointCRMONDemand.

The service then invokes the second customer extension logic (PreprocessABM), if configuration of the extension is enabled. The service then invokes the OpportunityWSEndPointCRMONDemand, followed by the third customer extension logic (PostprocessABM), if configuration of the extension is enabled.

The service then converts the ABM message that is returned from the OpportunityWSEndPointCRMONDemand into the EBM response format. The service then invokes the fourth customer extension logic (PostprocessEBM), if configuration for the extension is enabled. Last, the service returns the EBM message to the QueryOpportunityEBS.

This service has one operation: QueryOpportunity

The input message will contain this key information:

- Caller system ID.

For example, JDEE1_01

- CRMOD host ID.

For example, CRMOD_01

If this value is not passed in, it will be retrieved from the configuration property as a default host ID.

- Opportunity ID.

For example, 1QA2-JDPRK

This example displays the required key information that is included in the output message:

```
- <opportunity xmlns:ns1="urn:/crmondemand/xml/opportunity">
  - <ns1:Opportunity>
    <ns1:OpportunityId />
    <ns1:AccountId />
    <ns1:CurrencyCode />
    - <ns1:ListOfProduct>
      - <ns1:Product>
        <ns1:ProductId />
        <ns1:Quantity />
        <ns1:ShipDate />
      </ns1:Product>
    </ns1:ListOfProduct>
  </ns1:Opportunity>
</opportunity>
```

Example of an output message

Error Handling

The QueryOpportunityCRMODProvABCSImpl handles these application errors:

- BindingFault exception with invoking OpportunityWSEndPointCRMODemand.
- RemoteFault exception with invoking OpportunityWSEndPointCRMODemand.

OpportunityWSEndPointCRMODemand

The OpportunityWSEndPointCRMODemand utility BPEL flow is invoked within the QueryOpportunityCRMODProvABCSImpl services to retrieve session, release session, and query CRM On Demand for opportunity information.

The request message contains this information:

- ODHostID (HostID)
- callerId
- retryCount
- ListOfOpportunity
- ODSessionId
- Operation

The response message contains this information:

- ListOfOpportunity
- Error Status
- Error Message

Part 2: Implementing the Delivered Process Integrations

[Chapter 6: Configuring the Lead to Order PIP](#)

Chapter 6: Configuring the Lead to Order PIP

Before using the Lead to Order process integration pack (Lead to Order PIP), you must complete all of the necessary implementation and configuration tasks. You complete these tasks after you have installed the appropriate Oracle Application Integration Architecture (AIA) foundation pack and the Lead to Order PIP.

This chapter discusses:

- Prerequisites
- Data requirements
- Setting up the JD Edwards EnterpriseOne applications
- Setting up bulk load programs
- Configuring the transaction server for Websphere Application Server (WAS)
- Setting up the JD Edwards EnterpriseOne ports, subscribers, and OCM mappings
- Setting up batch processing information
- Setting up FTP Adapter information
- Setting up Oracle Web Services Manager security information
- Setting up CRM On Demand integration users
- Creating custom fields in CRM On Demand
- Creating web links in CRM On Demand
- Modifying the OracleCRMODDataSource connection pool
- Configuring integration workflow events in CRM On Demand
- Modifying AIACompositeScheduler
- Working with cross-references
- Handling errors
- Viewing EBO implementation maps (EIM)
- Working with domain value maps (DVM)
- Setting configuration properties
- Reviewing default routing rules

Prerequisites

This section discusses the prerequisites for the following:

- Bulk data loads and synchronization
- Customer management process integration
- Product management process integration
- Order management process integration

Prerequisites for Bulk Data Loads and Synchronization

Before running the bulk data loads, you must:

1. Set up versions of each extract program in JD Edwards EnterpriseOne.

For more information, see [Setting Up Bulk Load Programs](#).

2. Set up batch processing information.

For more information, see [Setting Up Batch Processing Information](#).

3. Set up custom fields in CRM On Demand.

For more information, see [Creating Custom Fields in CRM On Demand](#).

Prerequisites for Customer Management Process Integration

Before running the customer process integration:

1. Run the initial bulk data load for customer and contact data.

For more information, see Chapter 2: Bulk Data Loads and Synchronization > Understanding Customer and Contact Data Load and Synchronization.

2. Activate the JD Edwards EnterpriseOne RTE RTCMOUT2.

For more information, see [Activating Realtime Events](#).

3. Create custom fields in CRM On Demand to support the Lead to Order process integration pack (PIP).

For more information, see [Creating Custom Fields in CRM On Demand](#).

Prerequisites for Product Management Process Integration

Before running the product process integration:

1. Run the initial bulk data load for product data.

For more information, see Chapter 2: Bulk Data Loads and Synchronization > Loading and Synchronizing Product Data.

2. Activate the JD Edwards EnterpriseOne RTE RTIMOUT.

For more information, see [Activating Realtime Events](#).

Prerequisites for Order Management Process Integration

Before running the order process integration:

1. Set up sales order programs in JD Edwards EnterpriseOne.

For more information, see *JD Edwards EnterpriseOne Sales Order Management Implementation Guide*, “Entering Sales Orders for Customer Service Representatives.”

2. Create the web link for sales order integration.

For more information, see [Creating Web Links in CRM On Demand](#).

3. Set the soft coding record for the Opportunity Processor web service.

For more information, see [Using JD Edwards EnterpriseOne Web Services](#).

4. Specify a default branch plant using at least one of these programs:

- Default Location and Printers program (P400951)
- Processing options for the Sales Order Entry program (P4210)

On the Default tab of these processing options, specify a default branch plant in either option 11 (Header Branch/Plant) or option 12 (Default Branch/Plant).

5. Also, users should have a complete understanding of the JD Edwards EnterpriseOne Sales Order Management system and the CRM On Demand opportunity entry process.

For more information, see *JD Edwards EnterpriseOne Sales Order Management Implementation Guide*, “Getting Started with JD Edwards EnterpriseOne Sales Order Management.”

For more information, see *CRM On Demand Online Help Release 16*, “Opportunities.”

Data Requirements

Data requirements indicate the mandatory data that must be provided to make the integration flows successful.

This section discusses the data requirements of the following process integrations:

- Customer management process integration
- Product management process integration
- Order management process integration

Customer Management Process Integration Data Requirements

For customer data updates and synchronization, only the customer or account name is required. All other fields can be left blank or populated with default data.

Any additional data requirements that are specific to individual services are documented with the service.

Product Management Process Integration Data Requirements

For product data updates and synchronization, synchronized items must contain an item number. This field is required for items in JD Edwards EnterpriseOne.

Any additional data requirements that are specific to individual services are documented with the service.

Order Management Process Integration Data Requirements

To access the JD Edwards EnterpriseOne P42180 program from a CRM On Demand opportunity, the following data are required:

- Opportunity Name
- Customer Name
- CRM On Demand Instance ID
- Opportunity ID

Setting Up the JD Edwards EnterpriseOne Applications

Before you can use the Lead to Order PIP, you must set up several applications in JD Edwards EnterpriseOne that are used by the PIP. The integration processes and flows supported in this PIP generally require that data is entered into JD Edwards EnterpriseOne before any synchronization or updates occur in CRM On Demand. Therefore, users *must* understand how to accurately enter data in the JD Edwards system so that updates and synchronizations to CRM On Demand are successful.

This section discusses how to:

- Activate realtime events.
- Enter customers, contacts, and items.

Activating Realtime Events

A realtime event (RTE) is a notification to a third-party system that a business transaction has occurred in JD Edwards EnterpriseOne. The Lead to Order PIP uses RTEs to notify the AIA middleware and, subsequently, CRM On Demand, that additions, changes, or deletions of customer and product information have occurred and are available for processing.

For RTEs to function, you must activate the RTEs and subscribe to JD Edwards EnterpriseOne to receive notification when a specific transaction occurs. These RTEs are used in the Lead to Order PIP:

- RTCMOUT2

This RTE is used to notify external systems of additions, changes, or deletions to customer information.

- RTIMOUT

- This RTE is used to notify external systems of additions, changes, or deletions to item information.

For more information about JD Edwards EnterpriseOne RTEs, see *JD Edwards EnterpriseOne Application Real Time Events Implementation Guide*. For instructions to define and activate RTEs, see *JD Edwards EnterpriseOne Tools 8.98 Interoperability Guide*, “Using Guaranteed Events.”

For more information about the RTCMOUT2 and RTIMOUT RTEs, see [Appendix A: JD Edwards EnterpriseOne Realtime Events](#)

Entering Customers, Contacts, and Items

You can enter customers in JD Edwards EnterpriseOne using two different methods:

- Enter customers directly into the Address Book system using the Address Book Revisions program (P01012).

For more information, see *JD Edwards EnterpriseOne Address Book Implementation Guide*, “Entering Address Book Records.”

- Enter customers into the JD Edwards EnterpriseOne Customer Relationship Management (CRM) system using the CRM Customer Detail program (P90CA080).

For more information, see *JD Edwards EnterpriseOne Customer Relationship Management Application Fundamentals Implementation Guide*, “Managing Customer Information.”

You can enter contacts in JD Edwards EnterpriseOne using two methods:

- Enter contacts using the Who's Who function from the Address Book Revisions program (P01012).

For more information, see *JD Edwards EnterpriseOne Address Book Implementation Guide*, “Entering Address Book Records, Adding Who's Who Information to Address Book Records.”

- Enter contacts into the CRM system using the CRM Contact program (P90CA070).

For more information, see *JD Edwards EnterpriseOne Customer Relationship Management Application Fundamentals Implementation Guide*, “Managing Contacts.”

You enter item information in the JD Edwards EnterpriseOne Inventory Management system using the Item Master program (P4101). The JD Edwards EnterpriseOne Inventory Management system uses this information to help track and process each item through the distribution and manufacturing process.

Entering an item includes two steps:

1. Enter item master information, which includes basic information about an item.
2. Configure the item master information to suit each branch/plant that the item occupies.

Note: Branch/plant functionality is limited for the Lead to Order PIP; therefore, configuring this information in JD Edwards EnterpriseOne is not required for the product integration flows.

For more information, see *JD Edwards EnterpriseOne Inventory Management Implementation Guide*, “Entering Item Information.”

Setting Up Bulk Load Programs

Before you can use the Lead to Order PIP effectively, you should bulk load customer, contact, and item information from JD Edwards EnterpriseOne into CRM On Demand. Before you can process the bulk loads using batch programs, you must configure versions for each of them. Bulk load programs include:

- Customer Extract batch program (R03012D2)
- Customer Who's Who Extract batch program (R0111D)
- Customer Alternate Address Extract batch program (R01161D)
- Item Extract batch program (R4101D2)

For more information, see *JD Edwards EnterpriseOne Tools 8.98 Development Tools: Batch Versions Guide*.

Setting Up the Customer Extract Batch Program (R03012D2)

You use this program to bulk load customer data from JD Edwards EnterpriseOne to CRM On Demand. Before running this program, you must set the processing options to ensure that data is extracted correctly.

Complete this processing option on the Version tab:

Version of R0111D to call:

Specify which version of the “Customer Who’s Who Extract batch program (R0111D)” to call during processing. If you enter a version here, the system extracts both customer and contact data during processing. Customer data is written to an XML file, and contact data is written to a .csv file. If you leave this processing option blank, the system does not process contact data.

Complete this processing option on the Process tab:

1. Path where XML file will be written:

Specify the location to store the first customer data XML file when processing is complete. This file contains all of the selected customer records but does not include parent or related address information. The file name is formatted as R03012D2_MMDDYY_hhmmss.xml. The file name will be appended to the value entered in this processing option to determine the fully qualified path and name.

For example, if you enter a value of C:\B9\DV812\Export\, the resulting XML file will be stored and written as C:\B9\DV812\Export\R03012D2_MMDDYY_hhmmss.xml.

All directories specified in the path must already exist. If this processing option is left blank, the resulting XML file will be written to the directory where R03012D2 is running, for example, C:\B9\.

2. Path where 2nd XML file will be written:

Specify where to store the second customer data XML file when processing complete. This file contains parent and related address information. The file name is formatted as R03012D202_MMDDYY_hhmmss.xml. The file name will be appended to the value entered in this processing option to determine the fully qualified path and name.

For example, if you enter a value of C:\B9\DV812\, the resulting XML file will be stored and written as C:\B9\DV812\R03012D202_MMDDYY_hhmmss.xml.

All directories specified in the path must already exist. If this processing option is left blank, the resulting XML file will be written to the directory where R03012D2 is running, for example, C:\B9\.

Warning! The path that you enter for this file must be different from the path that you enter for the first XML file in processing option 1.

Setting Up the Customer Who's Who Extract Batch Program (R0111D)

You use this program to bulk load contact data from JD Edwards EnterpriseOne to CRM On Demand. Before running this program, you must set the processing options to ensure that data is extracted correctly.

Complete these processing options on the Process tab:

1. Cell Phone Type:

Specify the telephone number to use for cellular phone. Valid codes are in user-defined code (UDC) table 01/PH (phone type). If a phone number with this type is not found in the F0115 table, the Cell Phone field will be left blank.

2. Home Phone Number Type:

Specify the telephone number to use for home phone. Valid codes are in UDC table 01/PH (phone type). If a phone number with this type is not found in the F0115 table, the Home Phone field will be left blank.

3. Work Phone Number Type:

Specify the telephone number to use for work phone. Valid codes are in UDC table 01/PH (phone type). If a phone number with this type is not found in the F0115 table, the Work Phone field will be left blank.

4. Work Fax Number Type:

Specify the telephone number to use for faxes. Valid codes are in UDC table 01/PH (phone type). If a phone number with this type is not found in the F0115 table, the Work Fax field will be left blank.

5. Email Address Type:

Specify the electronic address type (UDC table 01/ET) to use for email addresses. If an electronic address with this type is not found in the F01151 table, the Email Address field will be left blank.

Complete this processing option on the Version tab:

1. Version of R01161D:

Define the version of the Customer Alternate Address Extract program (Customer Alternate (R01161D)). If you leave this field blank, the R01161D program will not be run.

Setting Up the Customer Alternate Address Extract Batch Program (R01161D)

You use this program to extract alternate address information from JD Edwards EnterpriseOne so that it can be bulk loaded into CRM On Demand. This program does not include processing options. To extract alternate address data, you must enter a version of this program in the processing options of the R0111D data extract program. You can use the default version (XJDE0001), or create your own version.

Setting Up the Item Extract Batch Program (R4101D2)

You use this program to extract item data from JD Edwards EnterpriseOne so that it can be bulk loaded into CRM On Demand. Before running this program, set the processing options to define the file path location for the XML file that is generated.

Complete this processing option on the Process tab:

1. Path where XML file will be written:

Specify the file location that the system uses for storing the resulting XML file. The name of the resulting XML file will be in the format of R4101D2_MMDDYY_hhmmss.xml. The file name will be appended to the value entered in this processing option to determine the fully qualified path and name.

For example, if you enter a value of C:\B9\DV812\Export\, the resulting XML file will be stored and written as C:\B9\DV812\Export\R4101D2_MMDDYY_hhmmss.xml.

All directories specified in the path must already exist. If this processing option is left blank, the resulting XML file will be written to the B9 directory where R4101D2 is running, for example, C:\B9\.

Setting Processing Options for Sales Order Programs

Before you can use the order management process integration, you must create versions and set the processing options for these sales order programs in JD Edwards EnterpriseOne:

- Sales Order Entry (P42101)

Create one version of this program to process sales quotes, and another to process sales orders.

- Sales Order from CRM On Demand Opportunity (P42180)

After you create versions of the P42101 to process quotes and sales orders, and you set processing options for those versions, you then create a version of the P42180, and set the processing options for that version. You must enter the versions of that P42101 that you are using to process quotes and sales orders for the Lead to Order integration in the processing options of this program.

For instructions about setting up and using the P42101 program:

For more information, see *JD Edwards EnterpriseOne Sales Order Management Implementation Guide*, “Entering Sales Orders for Customer Service Representatives.”

Setting Processing Options for the Sales Order from CRM On Demand Opportunity Program (P42180)

Set these processing options to specify how the system processes sales quote and order information when generating quotes and sales orders from CRM On Demand opportunity records.

Complete this processing option on the Process tab:

1. Bypass order confirmation screen:

Specify whether the system generates order confirmation messages during sales quote and sales order generation. Values are:

Blank: Display the confirmation message.

1: Do not display the confirmation message.

Complete these processing options on the Versions tab:

1. Sales Order Entry (P42101)

Specify the version of the P42101 that you want to use to process sales orders that are generated from CRM On Demand opportunity records. If you leave this processing option blank, the system uses version ZJDE0001.

2. Quote Order Entry (P42101)

Specify the version of the P42101 that you want to use to process sales quotes that are generated from CRM On Demand opportunity records. If you leave this processing option blank, the system uses version ZJDE0003.

Configuring the Transaction Server for WAS

If you are using WAS to process transaction data for the Lead to Order PIP, you must configure the transaction server so that event messages are written to the remote WebLogic (WLS) JMS Queue.

Configuring the Transaction Server for WAS/WLS to Send Event Message to Remote Weblogic Queue

The following steps are required for enabling the transaction server to communicate with remote Weblogic Queue as part of JMSQUEUE subscription:

1. Create wfullclient.jar using Weblogic JarBuilder tool at the destination Weblogic server. Follow the instruction available at http://download.oracle.com/docs/cd/E12839_01/web.1111/e13717/jarbuilder.htm
2. Extract the wfullclient.jar, delete the javax package from it and repackage it again to wfullclient.jar.
3. Put the wfullclient.jar into the EventProcessor application on Transaction Server at
`<APP_SERVER_HOME>/installedApps/<CELL_NAME>/<RTE_INSTANCE_NAME>_<RTE_PORT>_EventProcessor_EAR.ear (WAS)`
`<APP_SERVER_HOME>/j2ee/<RTE_INSTANCE_NAME>/<RTE_INSTANCE_NAME>_<RTE_PORT>_EventProcessor_EAR.ear (WLS)`
4. Modify the MANIFEST.MF available at the folder EventProcessor_WAR.war under
`<APP_SERVER_HOME>/installedApps/<CELL_NAME>/<RTE_INSTANCE_NAME>_<RTE_PORT>_EventProcessor_EAR.ear (WAS)`

<APP_SERVER_HOME>/j2ee/<RTE_INSTANCE_NAME>/<RTE_INSTANCE_NAME>_<RTE_PORT>_EventProcessor_EAR.ear (WLS) to contain wlfullclient.jar in the Class-Path.

Class-Path: EventProcessor_JAR.jar Base_JAR.jar JdbjBase_JAR.jar JdbjInterfaces_JAR.jar JdeNet_JAR.jar Spec_JAR.jar System_JAR.jar log4j.jar EventProcessor_EJB.jar Monitor_JAR.jar PMApi_JAR.jar SawKernel_JAR.

jar ApplicationAPIs_JAR.jar SystemInterfaces_JAR.jar castor.jar Metadata.jar MetadataInterface.jar BusinessLogicServices.jar Generator_JAR.jar ManagementAgent_JAR.jar jmxri.jar jmxremote.jar jmxremote_optional.jar xmlparserv2.jar commons-logging.jar rmiutil.jar commons-httpclient-3.0.jar commons-codec-1.3.jar xerces.jar wlfullclient.jar

5. Restart the transaction server.

For more information about JD Edwards EnterpriseOne RTEs, see *JD Edwards EnterpriseOne Application Real Time Events 9.0 Implementation Guide*. For instructions to define and activate RTEs, see *JD Edwards EnterpriseOne Tools 8.98 Interoperability Guide*, “Using Guaranteed Events.”

Using JD Edwards EnterpriseOne Web Services

EnterpriseOne web services, also called business services, must be deployed on the WLS application server using the migration utility provided by EnterpriseOne.

These JD Edwards EnterpriseOne web services are used in the Lead to Order PIP:

- CustomerAndContactManager (JP010050)
- CustomerManager (JP010020)
- OpportunityProcessor (J4200080)

Before you can use the OpportunityProcessor business service, you must set up soft-coding records. This section discusses how to set up soft-coding for the OpportunityProcessor.

For more information about JD Edwards EnterpriseOne business services, see *JD Edwards EnterpriseOne Business Services Reference Guide*.

Note: JD Edwards EnterpriseOne BSSVs need to be built using the option for migration from 10g to 11g turned on. See *JD Edwards EnterpriseOne Release 8.98.3 Building Business Services Packages with Migration* (My Oracle Support Doc ID 1233332.1) for details about weblogic build and deployments.

Note: You must follow the JVM configurations for WAS 7.0 for consumer BSSV to function. See *JD Edwards EnterpriseOne Tools 8.98 Business Services Server Reference Guide, Revised* (Doc ID 705461.1) for details.

CustomerAndContactManager (JP010050)

The CustomerAndContactManager published business service manages the processing of these web service operations:

Operation	Description
ProcessCustomer (J0100021)	Use this operation to add, change, or delete information in JD Edwards EnterpriseOne.
ProcessContact (J0100003)	Use this operation to add, change, or delete contact records in the JD Edwards EnterpriseOne Address Book system.

For more information, see *JD Edwards EnterpriseOne Business Services Reference Guide*, “Customer Manager Web Service.”

For more information, see *JD Edwards EnterpriseOne Business Services Reference Guide*, “Address Book Manager Web Service.”

CustomerManager (JP010020)

The CustomerManager published business service manages the processing of this web service operation:

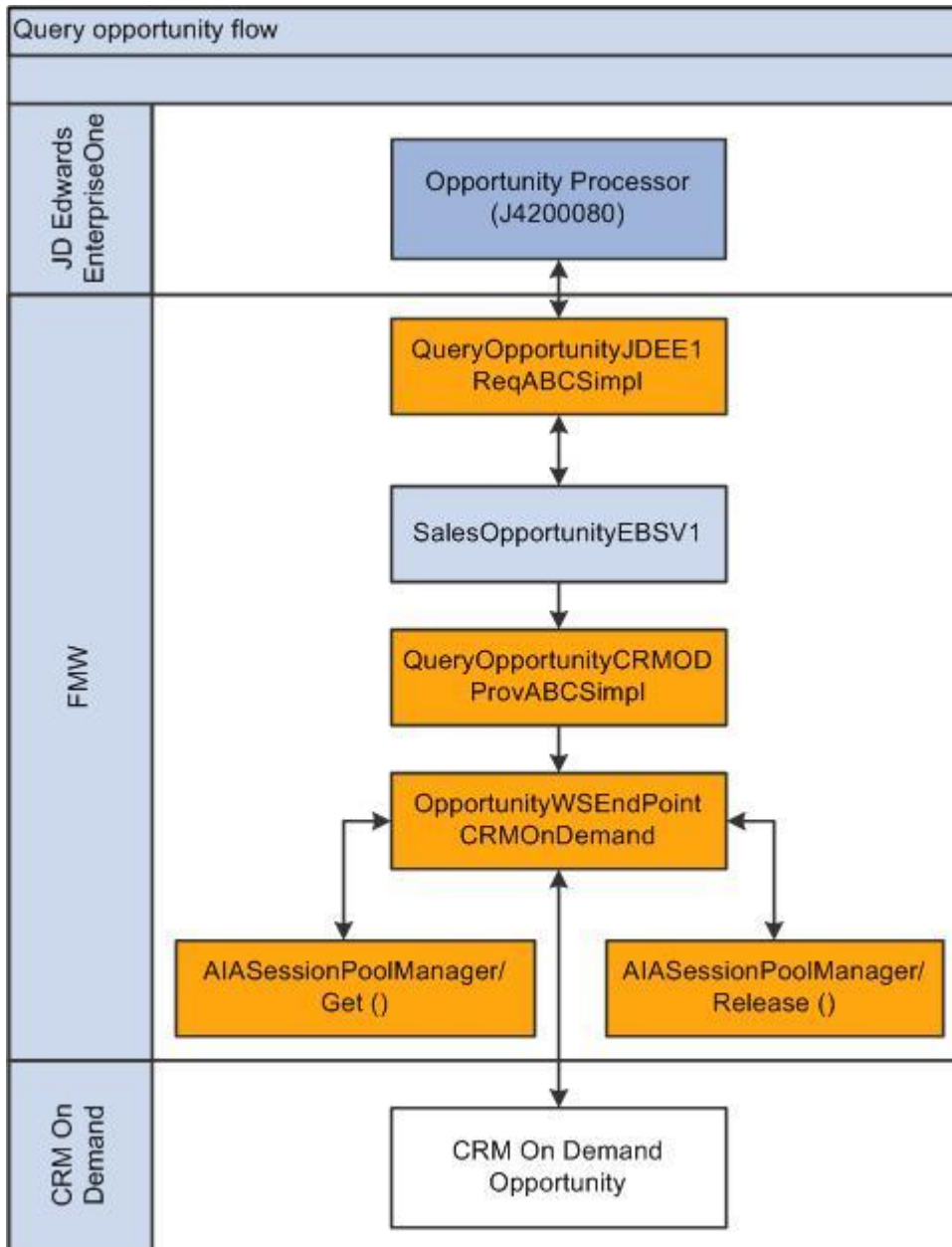
Operation	Description
getCustomer (J0100022)	Use this operation to retrieve and review customer information, including address, phone numbers, electronic addresses, and contact information, from the JD Edwards EnterpriseOne database.

For more information, see *JD Edwards EnterpriseOne Business Services Reference Guide*, “Customer Manager Web Service.”

OpportunityProcessor (J4200080)

The Opportunity Processor web service is called by the CreateSalesOrderFromExternal Opportunity business function (B4218010) when a user attempts to create a sales order or sales quote from an external opportunity record. For the Lead to Order PIP, the external system is CRM On Demand. The service queries the external system and returns the opportunity information to JD Edwards EnterpriseOne. The opportunity data is then used by the Sales Order program (P42180) to generate an EnterpriseOne sales order.

This diagram illustrates the process flow that includes the OpportunityProcessor web service:



Query opportunity process flow

Setting Up Soft-Coding for the OpportunityProcessor Business Service

For the OpportunityProcessor web service to function properly with the Lead to Order PIP, you must set up a soft-coding record using the EnterpriseOne Update Web Service Soft Coding program (P954000).

The application business connector service (ABCS) can be deployed as secured or as unsecured. Soft-coding setup is different for secure and unsecure deployment of ABCS. Clients may decide to deploy their ABCSs secured or unsecured. The soft-coding record in JDE EnterpriseOne for the J4200080 consumer BSSV must be set up properly, depending on the ABCS security.

1. If ABCS is secured (and masked password must be set in the grid):

```
<port-info>
  <stub-property>
    <name>javax.xml.rpc.service.endpoint.address</name>
    <value>http://[SOA_HOST]:[SOA_PORT]/soa-
infra/services/default/QueryOpportunityJDEE1ReqABCSE1Impl/QueryOpportu
nityJDEE1ReqABCSE1Impl</value>
  </stub-property>
  <wsdl-port namespaceURI="http://oracle.e1.bssv.J4200080/"
localpart="OpportunityProcessor"/>
  <runtime enabled="security">
    <security>
      <inbound/>
      <outbound>
        <username-token name="username" password="_||_masked
password_||_" passwordtype=" PLAINTEXT" add-nonce="false" add-
created="false"/>
      </outbound>
    </security>
  </runtime>
  <operations>
    <operation name='getOpportunity' />
  </operations>
</port-info>
```

2. If ABCS is not secured:

```
<port-info>
  <stub-property>
    <name>javax.xml.rpc.service.endpoint.address</name>
    <value>http://[SOA_HOST]:[SOA_PORT]/soa-
infra/services/default/QueryOpportunityJDEE1ReqABCSE1Impl/QueryOpportu
nityJDEE1ReqABCSE1Impl</value>
  </stub-property>
</port-info>
```

For more information, see *JD Edwards EnterpriseOne Tools 8.98 Business Services Development Guide*, “Working With Soft Coding.”

Setting Up JD Edwards EnterpriseOne Ports, Subscribers, and OCM Mappings

This section discusses how to:

- Configure ports.
- Set up subscribers
- Set up OCM mappings.

Configuring Ports

You must configure port information before using the Lead to Order PIP. JD Edwards EnterpriseOne must be able to identify the `soa_server1` listen port to send RTE messages to the Oracle WebLogic Server, which is running on SOA Suite.

To configure the SOA server port:

1. Access the Oracle WebLogic Server console and click the servers on the environment page. `soa_server1` listen port is listed in the Listen Port column.
2. Click `soa_server1` and Listen port field on the Configuration tab.
3. Change the listen port to the port you prefer and click Save.
4. Restart the `soa_server`.

Setting Up Subscribers

After you configure ports in JD Edwards EnterpriseOne, you must set up subscribers to receive the notifications that are produced by these JD Edwards EnterpriseOne RTEs:

- RTIMOUT (item)
- RTCMOUT2 (customer)

When you set up subscribers, the port in the Provider URL field should match the port configuration that you have set up for the Lead to Order PIP. Additionally, subscribers must be set up with JMSQUEUE Transport Type.

The Provider URL field must equal `t3:// server name: soa server listen port` for both WebLogic and WAS.

The Connection Factory JNDI Name and Queue Name must also be configured for the Lead to Order PIP.

For both Oracle WebLogic and the WAS transaction server:

- Connection Factory JNDI Name = `jms/aia/AIAJDEE1CF`
- For Item, Queue Name = `jms/aia/AIA_JDEE1ItemJMSQueue`
- For Customer, Queue Name = `jms/aia/AIA_JDEE1CustomerJMSQueue`
- Message Format = XML
- Application Server = Oracle WebLogic Or WAS
- Queue Location = Remote
- Initial Context Factory = `weblogic.jndi.WLInitialContextFactory`

After changing the subscribers, you must bounce the active transaction server.

For more information, see *JD Edwards EnterpriseOne Tools 8.98.3 Interoperability Guide*, “Using Guaranteed Events,” Understanding Subscribers and Subscriptions.

Setting Up OCM Mappings

You use the JD Edwards EnterpriseOne Object Configuration Manager (OCM) program (P986110) to set up OCM mapping records for the outbound web services that the Lead to Order PIP uses. You must create these records in the server OCM. Use version ZJDE0003 to set up mapping information for this PIP.

Business services that are used by this PIP include:

- CustomerAndContactManager (JP010050)
- CustomerManager (JP010020)
- OpportunityProcessor (J4200080)

Note: Because the environment name is used to identify a single instance of JD Edwards EnterpriseOne, OCM mappings have some restrictions when you use this PIP. All users and roles working in a specific environment must have the OCM mappings set to the same data source for the tables that are used by this PIP. This setting is required for the proper maintenance of cross-references.

For more information, see *JD Edwards EnterpriseOne Tools 8.98 Configurable Network Computing Implementation Guide*, “Working With Object Configuration Manager.”

Setting Up Batch Processing Information

To use the bulk load and synchronization functions for item and customer information, you must first set up batch information. This section discusses how to set transaction timeout values consumer properties.

Setting Transaction Timeout Values

When you send information between JD Edwards EnterpriseOne and CRM On Demand, you are sending batches of data, not individual transactions. The timeout value in many systems is set to accommodate transactional processing, which typically takes a shorter amount of time than processing a batch of data.

To ensure that the system is able to process all of the data in a batch before timing out, you must verify that the timeout values are set to a higher number than is used for standard transactional processing.

This table lists the configuration files and minimum timeout settings that you must update to accommodate larger timeout values. You might need to increase these settings depending on SOA setup and message size.

After all of these settings are updated you must restart the Oracle WebLogic Server for the changes to take effect.

Configuration Steps	Setting	Value
This property controls the maximum time the process result receiver will wait for a result before returning for Sync processes. Log in into EM	timeout-seconds	420

Configuration Steps	Setting	Value
Expand SOA and right click soa-infra and select: SOA Administration -> BPEL Properties Click the More BPEL Configuration Properties..." link Locate syncMaxWaitTime and change it.		
The timeout properties for the EJB's control the particular timeout setting for the SOA application, overriding the global setting specified by the JTA timeout. Log into Oracle WebLogic Administration Console. Click Deployments. Expand soa-infra -> EJBs. For these BPEL EJBs: BPELActivityManagerBean BPELDeliveryBean BPELDispatcherBean BPELEngineBean BPELFinderBean BPELInstanceManagerBean BPELKeyGeneratorBean BPELProcessManagerBean BPELSensorValuesBean BPELServerManagerBean BPELTestInstanceManager	Transaction Timeout setting on Configuration tab	380
This property controls the transaction timeout seconds for active transactions. If the transaction is still in the "active" state after this time, it is automatically rolled back. Log into Oracle WebLogic Administration Console. Click JTA. Change the value of Timeout Seconds (the default is 30). Click Save.	syncMaxWaitTime	360

Note: You must set up the syncMaxWaitTime setting using the configurations tab on the EM Console; you should not manually update it. Also, these values are suggested values and might need to be increased to accommodate large batches of data.

Setting Up FTP Adapter Information

To support the bulk load processes for the Lead to Order PIP, you must set up FTP adapter information from the WebLogic Administration Console.

1. Open WebLogic Administration Console. Navigate to Deployments and search for FtpAdapter.
2. Click the FtpAdapter link.

3. Navigate to the Configuration tab > Outbound Connection Pools > click New.
4. Select the javax.resource.cci.ConnectionFactory group.
5. Click Next.
6. Enter eis/Ftp/JDEE1FtpAdapter in the JNDI Name field.
7. Click Finish.
8. Ensure that the JNDI name is now present in the Outbound Connection Pools tab.
9. Click the new JNDI Name.

The Outbound Connection Properties page is displayed.

10. Edit these Outbound Connection Properties:

- ftpAbsolutePathBegin
- host
- password
- port
- serverType
- username

Values must be set according to the FTP set up on the EnterpriseOne Enterprise Server.

11. Click Save.

A prompt is displayed. Click Ok to save the deployment plan with the default name provided by the console.

12. To update the deployment plan, navigate to Deployments page, select the FtpAdapter check box, and click Update.
13. Click Next.
14. Click Finish.

15. The configured JNDI properties is updated in plan.xml under the target location

The target location is

.../oracle/Middleware/Oracle_SOA1/soa/Plan.xml

16. Restart the soa_server for the FtpAdapter changes to take effect.

Updating Thread Settings for Batch Routing Services

The Lead to Order PIP uses two mediator routing services to process batch data loads from JD Edwards EnterpriseOne to CRM On Demand:

- SyncCustomerCRMODRoutingService
- SyncItemCRMODRoutingService

Each of these services has a configurable mediator property, `ResequencerGroupXPath`, which determines the number of threads that the system can process at the same time. The default setting for this property is included here; it allows up to four groups to process simultaneously:

```
($in.request/inpl:SyncCustomerPartyListEBM/ns4:EBMHeader/ns4:EBMTracking/ns4:ExecutionUnitID) mod (4) +1
```

You change the number of threads that the system processes by changing the value in parentheses in this portion of the property value:

```
mod (4) +1
```

For example, if you want to process six threads, you can update the property in the following way:

```
($in.request/inpl:SyncCustomerPartyListEBM/ns4:EBMHeader/ns4:EBMTracking/ns4:ExecutionUnitID) mod (6) +1
```

Note: You should not change the thread settings for the Lead to Order PIP. However, system performance varies, and an update to this setting might be required for your implementation. If you change the number of threads in the property, you must also redeploy the routing service.

Setting Up Batch Consumer Properties

For the Lead to Order bulk load processes to work correctly, you must set up adapter properties for these batch consumer services:

- CustomerExtractJDEE1FTPConsumer_ep
- ItemExtractJDEE1FTPConsumer_ep
- CustomerExtractJDEE1FileConsumer_ep
- ItemExtractJDEE1FileConsumer_ep

To set these properties you must access each adapter from the WebLogic EM Console. Use the left navigation following these two paths:

```
Farm_soa_domain->SOA->soa-infra (soa_server1)->default->CustomerExtractJDEE1Consumer
```

```
Farm_soa_domain->SOA->soa-infra (soa_server1)->default->ItemExtractJDEE1Consumer
```

After the composite is selected, the Services and References section is displayed in the lower right side. You can select each of the adapters by clicking the name. On the adapter page, select the Properties tab.

All of the consumer services, discussed in this section, have the following three properties, which you can configure in the following way:

Property	Configuration Information
PublishSize	This property determines how many records are included in each batch. The default value for this property is 20. If you use a value larger than 20, the consumer services will not function properly, because CRM On Demand is limited to no more than 20 records in a batch insert. If you use a value less than 20, you could experience performance issues. Oracle recommends that you do not change this value.
PollingFrequency	This property specifies the time interval, in seconds, when the consumers check the file Location for new XML files to process. The default value for this property is 30.
PhysicalDirectory	This property must be modified to reflect the path to your XML files on the JD Edwards EnterpriseOne or Oracle FMW server. These are the examples of FTP and File adapter settings: Example of File Consumer: <AIA_HOME>/JDEE1_In (it should be the actual path to XML directory on the FMW server) Example of FTP Consumer: /JDEdwards/E900/output/ (it should be the path from the FTP home directory to the XML files created on the E1 enterprise server)

Note: We do not recommend you to change the PollingFrequency or PublishSize properties for the consumers.

For more information, see *Enterprise Service Bus Quick Start Guide 10g*, “Creating, Configuring, and Managing an Oracle Enterprise Service Bus.”

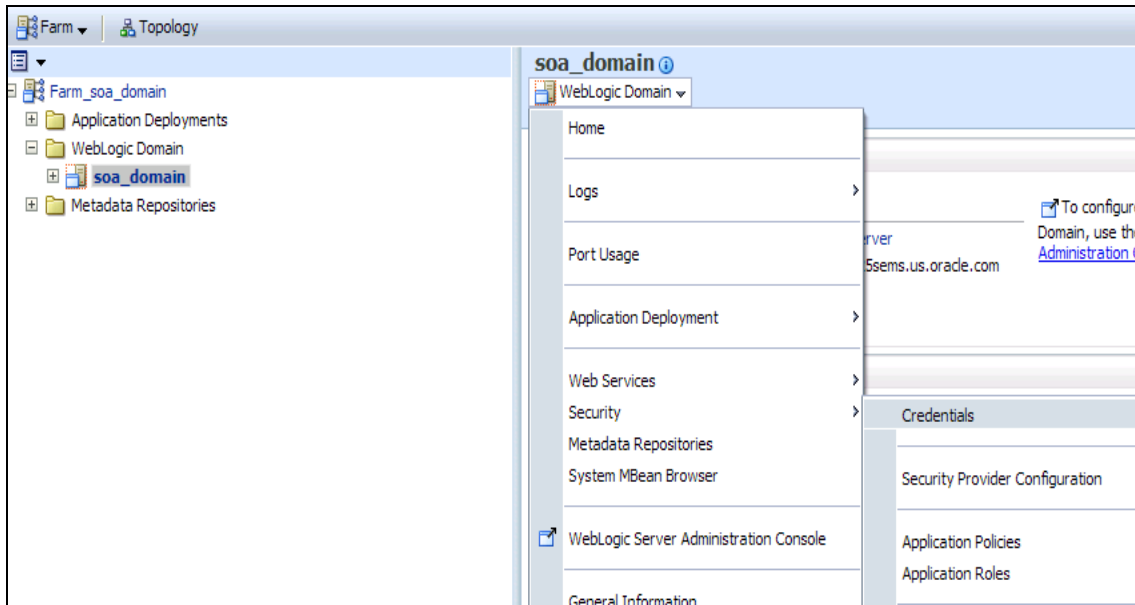
Setting Up Oracle Web Services Manager Security Credentials

An Oracle Web Services Manager (OWSM) client policy is automatically configured during PIP deployment for all of the provider calls to the EnterpriseOne Web services. This configuration refers to a credential key, which must be manually configured after the install.

Creating Credential Map and Credential Key

WLS stores the user name and password for Web service (BSSV) calls.

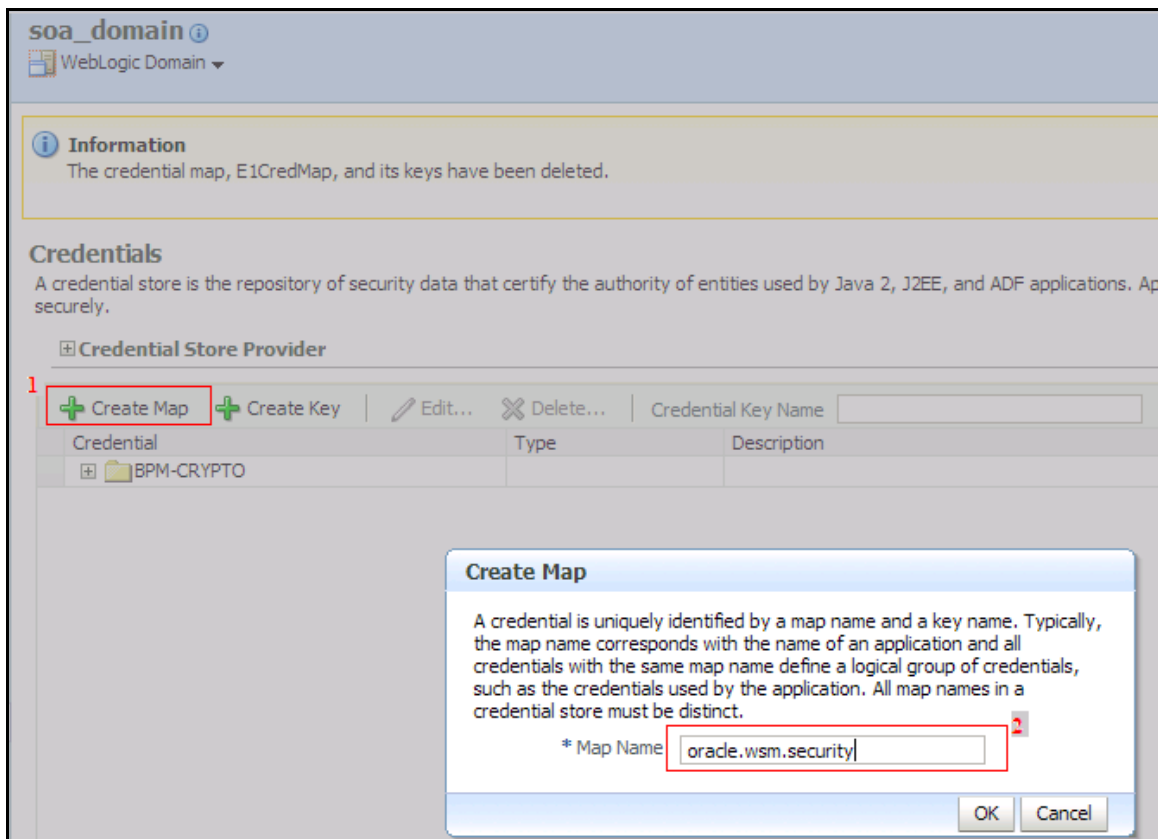
1. In the Enterprise Manager (EM) console, navigate to WebLogic Domain > soa_domains.
2. Select Security > Credentials from the drop-down list.



Example of Selecting Security > Credentials

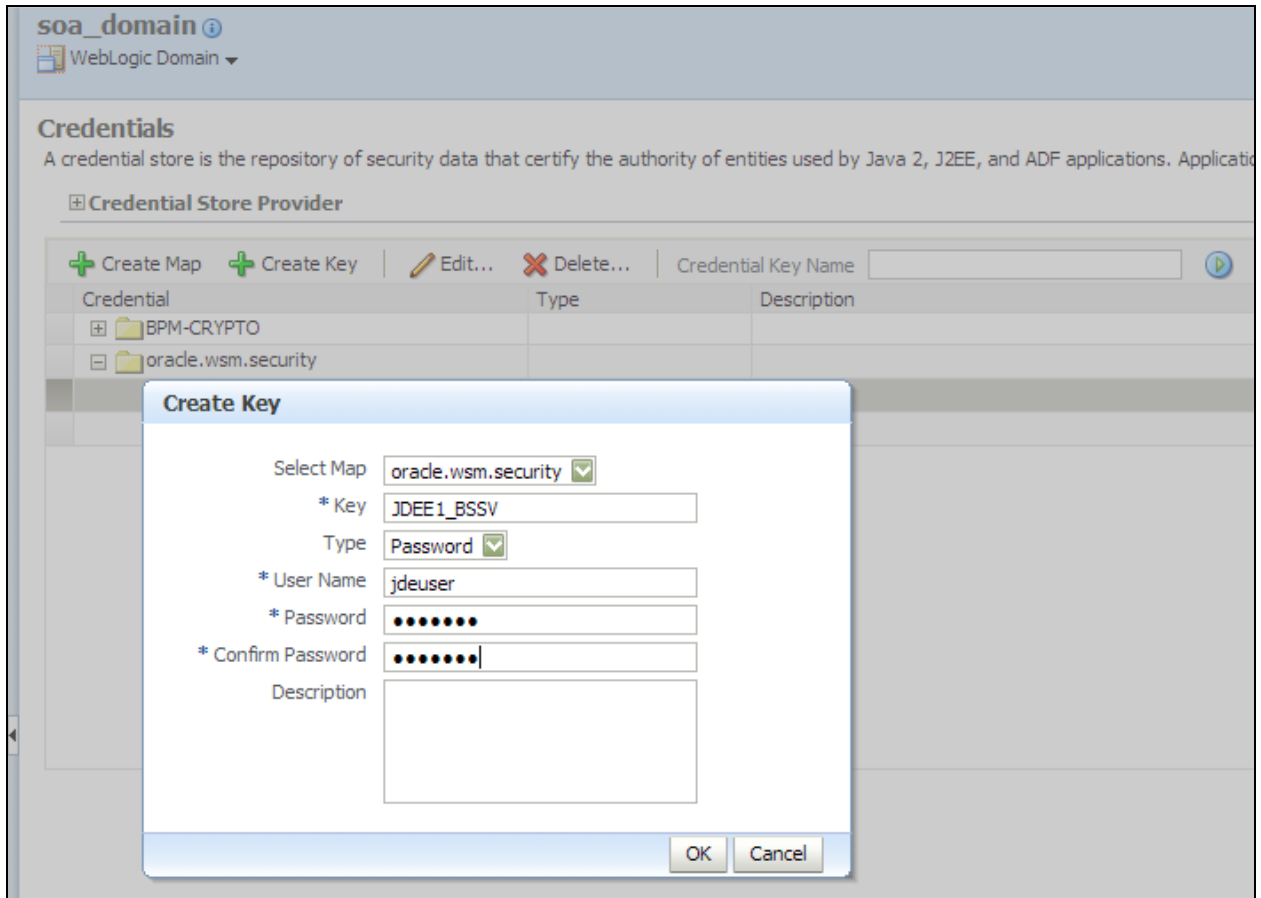
3. Click Create Map.
4. Enter the map name as oracle.wsm.security.

This name must not be changed,



Example of creating a new map

5. Highlight the new map.
6. Click Create Key.
7. Enter key as JDEE1_BSSV,
8. Enter the EnterpriseOne user name and password.



Example of creating a key

Setting Up CRM On Demand Integration Users

Before you can use the Lead to Order PIP, you must set up integration users in CRM On Demand. This section discusses how to:

- Define integration users.
- Update integration user information.

Note: This documentation provides information about the specific values that you must set up in CRM On Demand to support the Lead to Order PIP. This documentation does not provide detailed instructions for using CRM On Demand. For detailed information about creating custom fields, refer to the following cross-references.

For more information, see the CRM On Demand online help documentation.

For more information, see *CRM On Demand Online Help Release 16*, “Administering Siebel CRM On Demand,” User Management and Access Controls.

Defining Integration Users in CRM On Demand Webserver

To define integration users in CRM On Demand:

1. Log in to CRM On Demand.
2. On the welcome page, click the Admin link.
3. On the Admin Homepage, click the User Management & Access Controls link.
4. On the User Management & Access Controls page, click the Role Management link in the Role Management section.
5. On the Role List page, click edit next to an existing name to update an existing user or click the New User button to create a new user.
6. Ensure that the user has these privileges set up:
 - a. Manage Data Rules - Manage Workflow Rules
 - b. Manage Integration Event Queue

Note: If these privileges are not available to you in the Admin user interface, or if you have default integration event queue size less than 500,000, then contact your CRM On Demand system administrator to make sure that these privileges and settings are enabled for the integration user.

Updating CRM On Demand Integration User Information in FMW

You can update the CRM On Demand integration user information in FMW. This update is done in the Session Pool Manager module configuration. For example, you may want to change the user ID or password. The Session Pool Manager module configuration is declared in the `AIAConfigurationsProperties.xml`. The host ID to be updated is `CRMOD_01`.

For more information about Session Pool Manager module configuration, see *Oracle Application Integration Architecture Process Integration Pack Utilities Guide*, “Session Pool Manager.”

Creating Custom Fields in CRM On Demand

This section provides an overview of custom fields for the Lead to Order PIP and discusses how to:

- Create the Integration Status fields.
- Create additional account-related fields.
- Map the Integration Status field from Lead to Account.

- Add addresses to the Account page layout.

A pick list that is defined within CRM On Demand dictates whether records are to be synchronized to JD Edwards EnterpriseOne. This field is also used to display information if synchronization of a record fails. A synchronization status field, Integration Status, and corresponding long text field, Integration Message, provide details about a failed synchronization. These fields must be defined on the account, product, and lead objects. These fields should be made available only to administrators, and should not be available to CRM On Demand end users.

For more information, see *CRM On Demand Online Help Release 16*, “Administering Siebel CRM On Demand,” Application Customization.

Understanding Custom Fields

To support the Lead to Order PIP, you must create these custom fields in CRM On Demand:

- Integration Status

Create this field for the account, product, and lead objects in CRM On Demand.

- Integration Message

Create this field for the account, product, and lead objects in CRM On Demand.

Account-related fields:

- Customer
- Related Account Id
- CRMOD Host Id
- Customer Type

Page Layouts

After you create the Integration Status and Integration Message fields, you must add them to several page layouts so that the fields are available to system administrators and end users. These page layouts must contain the Integration Status and Integration Message fields for the PIP to function:

- Account Page Layout
- Product Page Layout
- Lead Page Layout

After you add the new fields to these page layouts, you must also point the Admin user role to the updated page layouts.

Field Mapping for Lead Conversion

After you have created the Integration Status and Integration Message fields and added them to the appropriate page layouts, you must set up field mapping information to support the CRM On Demand lead conversion process. The lead conversion process requires that the Integration Status field from the Lead page layout be mapped to the Integration Status field from the Account page layout.

Creating the Integration Status Fields

You define the custom fields on the CRM On Demand Account, Product, and Lead objects.

Important! These instructions provide details for creating the Integration Status field for the Account object only. You must also create this field for the Product and Lead objects. The Integration Status field for Leads should be set up as a read-only field.

To set up the Integration Status field:

1. Log in to CRM On Demand.
2. On the welcome page, use the links to complete this navigation: Admin>Application Customization> Record Type Setup: <object>link > Field Management: <object> Field Setup.
3. On the <object> Fields page, click the New Fields button.
4. On the <object> Field Edit page, complete the following fields and then click Save:

Field	Value
Display Name	Integration Status
Field Type	Picklist

5. Return to the <object> Fields page and locate the Integration Status field.
6. Click the Edit Pick list link that is associated with the Integration Status field.
7. Disable the <No Values> row in the pick list values and change the Order field for that row to 4.
8. Enter these pick list values for the Integration Status field:

Order	ID	Picklist Values
1	Sync ON	Sync ON
2	Sync OFF	Sync OFF
3	Sync FAILED	Sync FAILED

9. Navigate back to the <object> Fields page and click the New Fields button.
10. On the <object> Field Edit page, complete the following fields and then click Save:

Field	Value
Display Name	Integration Message

Field	Value
Field Type	Text(Long)

11. From the <object> fields page, click Rename Fields, then click Advanced and enter these field values:

Field	Value
Display Name	Integration Status
Integration Tag	plSync_Status
Display Name	Integration Message
Integration Tag	ltComments

Note: In previous releases of this PIP, the Integration Status and Integration Message display names were Sync Status and Sync Comments, respectively.

Adding Integration Fields to a Page Layout

After you create the Integration Status and Integration Message fields, you must add them to several page layouts so that they are available to system administrators.

To add the fields to the Admin layout, complete these steps for the account, product, and lead objects:

1. Log in to CRM On Demand.
2. From the welcome page, use the available links to complete this navigation: Admin > Application Customization > Record Type Setup: <object> link > Page Layout Management: <object> Layout > Edit Sections (Administrator).

Note: You must already have created a new custom layout, which you will use to modify the sections and add the fields. The option to Edit Sections is available only after you have created a custom layout.

3. On the Section Names Setup page, name one of the available sections JDE E1 Integration and then click Save.
4. Return to the <object> Page Layout page and click the Edit link associated with the Administrators version of the <object> page.
5. Click Next twice, stopping when you reach Step 3: Field Layout.
6. Add the Integration Status and Integration Message fields to the JDE E1 Integration section and click Finish.
7. Assign the modified page layouts to the Admin user role.

Creating Additional Account-Related Fields

To create additional account-related fields:

1. Log in to CRM On Demand.
2. From the welcome page, use links to complete this navigation: Admin > Application Customization > Record Type Setup: Account > Field Management: Account Field Setup.
3. On the Account Fields page, click the New Fields button.

Use the following table to complete the steps to create these new fields.

Display Name	Field Type
Customer	Text(Short)
Related Account Id	Text(Short)
CRMOD Host Id	Text(Short)
Customer Type	Picklist
	Note: You <i>must</i> set up this field as a required field. Additionally, you <i>must</i> set up this field with Bill To and Ship To Customer as the default value. If this field is not configured correctly, this PIP will not function properly.

After you create these fields, you must enter the valid pick list values for the Customer Type field.

To enter pick list values:

1. Return to the Account Fields page and click the Edit Picklist link for the Customer Type field.
2. Select the Disabled option for the row that has <No Values> in the ID column, and change the value in the Order field to 4.
3. Enter these pick list values for the Customer Type field, and then click Save and Close:

Order	ID	Picklist Values
1	Bill To Customer Only	Bill To Customer Only
2	Ship To Customer Only	Ship To Customer Only
3	Bill To and Ship To Customer	Bill To and Ship To Customer

Mapping the Integration Status Field from Lead to Account

After you create the Integration Status field for the Lead and Account objects, you must map the Integration Status field from the Lead to the Account object. To map the Integration Status field:

1. Log in to CRM On Demand.

2. From the welcome page, use links to complete this navigation: Admin > Business Process Management: Data Rules & Assignment > Lead Conversion Mapping.
3. On the Lead Conversion Mapping page, scroll down to the Integration Status field.
4. In the Integration Status row, select Integration Status from the pick list in the Account column.
5. Click Save.

Adding Addresses to the Account Page Layout

To view address information for accounts, you must add addresses to the items that appear on the Account page layout.

1. From the CRM On Demand homepage, click the Admin link.
2. On the Admin Homepage form, click the Application Customization link in the Application Customization section.
3. On the Application Customization form, click Account in the Record Type Setup section.
4. On the Account Application Customization form, click the Account Page Layout link in the Page Layout Management section.
5. On the Account Page Layout form, click the Edit link.
6. On the Page Layout Wizard form, complete the Layout Name field and then click the Related Information link under Step 4.
7. In the Available Information column, select Addresses and then click the right arrow to move it to the Displayed Information column.
8. Use the up arrows to move Addresses to the top of the list and then click Finish.

Creating Web Links in CRM On Demand

This section provides an overview of CRM On Demand web links and discusses how to:

- Set up the web link for customer integration.
- Set up the web link for sales order integration.

Understanding CRM On Demand Web Links

The Lead to Order PIP enables users to launch and use JD Edwards EnterpriseOne applications directly from CRM On Demand. You use web links and custom tabs that you define in CRM On Demand to access these applications. You set up web links with context-sensitive parameters that enable an administrator to define:

- The application, form, and version to launch.
- The data to pass to JD Edwards EnterpriseOne.

For the Lead to Order business process, an administrator can configure a link that launches the Customer application (P90CA080) or the Sales Order application (P42180) with certain fields, such as the field for the customer's address book number, that are prepopulated in the JD Edwards EnterpriseOne form.

When a user accesses the application, it can appear in a new browser window, within the current window, or on a custom tab. The instructions included in this documentation specify how to display the application in a new browser window.

For more information, see *CRM On Demand Online Help Release 16*, "Administering Siebel CRM On Demand," Application Customization.

Setting Up the Web Link for Customer Integration

To set up the web link for customer integration:

1. Log in to CRM On Demand.
2. From the welcome page, use links to complete this navigation: Admin > Application Customization.
3. From the Application Customization page, use links to complete this navigation: Record Type Setup: Account > Account Management: Account Field Setup.
4. From the Account Fields page, click New Field and create these fields:

Field	Value
Display Name	E1 Customer
Field Type	Web Link

5. From the Account Fields page, click Edit Web Link for the new web link field.
6. From the Edit Web Link page, specify how you want the system to display the application when you open it; we recommend that you select Open in New Window.
7. Specify the URL of the customer application using this format for JD Edwards EnterpriseOne 9.0:

```
http://[e1JasServer]:[port]/jde/HostedE1Servlet?OID=P90CA080_W90CA080D_ZJDE0001&FormDSTmpl=2|1&FormDSData=%%%Name%%%|%%%stCustomer%%%&jdecloselink=about:blank&JdeCloseAppStacks=true
```

Specify the URL of the customer application using this format for JD Edwards EnterpriseOne 8.12:

```
http://[e1JasServer]:[port]/jde/HostedE1Servlet?OID=P90CA080_W90CA080D_ZJDE0001&FormDSTmpl=5|1&FormDSData=%%%Name%%%|%%%stCustomer%%%&jdecloselink=about:blank&JdeCloseAppStacks=true
```

Where [e1 JasServer]:[port] is the JD Edwards EnterpriseOne JAS Server and port.

Ensure that URL does not contain any space.

8. Enter **%%%Name%%%** in the Display Text field.
9. Complete the steps, as defined by CRM On Demand, to finish the web link setup.

- After you create the web link, you must add the web link to the Account page layout and then assign the updated page layout to the appropriate user roles.

Note: Detailed instructions for the Page Layout Wizard are included in the CRM On Demand online help.

Setting Up the Web Link for Sales Order Integration

To set up the web link for sales order integration:

- Log in to CRM On Demand.
- From the welcome page, use links to complete this navigation: Admin > Application Customization > Record Type Setup: Opportunity > Field Management: Opportunity Field Setup.
- On the Opportunity Fields page, click the New Fields button.
- Complete these fields and then click Save:

Field	Value
Display Name	E1 Sales Order
Field Type	Web Link

- From the Opportunity Fields page, click Edit Web Link for the new web link field that you created.
- From the Edit Web Link page, specify how you want the system to display the application when you open it.

We recommend that you select Open in New Window.

- Specify the URL of the Customer application using this format:

```
http://[e1
JasServer]:[port]/jde/HostedE1Servlet?OID=P42180_W42180D_ZJDE0001&Fo
rmDSTmpl=4|5|6|7&FormDSData=%%%Id%%%|CRMOD_01|%%%Name%%%|%%%Account%
%%&jdeclosetlink=about:blank &JdeCloseAppStacks=true
```

Where [e1 JasServer]:[port] is the JD Edwards EnterpriseOne JAS Server and port.

Ensure that URL does not contain any space.

- Enter %%%Name%%% in the Display Text field.
- Complete any additional fields on the form and click Save.
- After you create the web link, you must add the web link and the Row ID field to the Opportunity page layout and assign the new layout to the appropriate user roles.

Note: Detailed instructions for the Page Layout Wizard are included in the CRM On Demand online help.

Configuring Integration Workflow Events in CRM On Demand

This section provides an overview of integration and workflow event configuration and discusses how to:

- Define workflow rule conditions
- Create and configure integration events.

Note: The documentation in this section provides information and examples that are specific to the Lead to Order PIP. For detailed information about using CRM On Demand, refer to the CRM On Demand online help documentation.

For more information, see *CRM On Demand Online Help Release 16*, “Administering Siebel CRM On Demand,” Data Management Tools.

For more information, see *CRM On Demand Online Help Release 16*, “Administering Siebel CRM On Demand,” Business Process Management.

Understanding Integration and Workflow Event Configuration

To enable the synchronization of account and account address data between CRM On Demand and JD Edwards EnterpriseOne, you must first define workflow rule conditions for several workflow events in CRM On Demand.

Note: After changing an integration event or workflow, users must log out of CRM On Demand to clear the cache.

This table lists the workflow events that you must configure and specifies the workflow rule condition that you must use:

Workflow Name	Record Type	Trigger Event	Workflow Rule Condition
Account-Delete	Account	When account record is deleted.	([<plSync_Status_ITAG>]=LookupValue ("OCC_CUST_LOV_ACCOUNT_1","Sync ON")) OR([<plSync_Status_ITAG>]=LookupValue ("OCC_CUST_LOV_ACCOUNT_1","Sync FAILED"))
Account-Insert	Account	When new account is saved.	[<plSync_Status_ITAG>]=LookupValue ("OCC_CUST_LOV_ACCOUNT_1","Sync ON")
Account-Update	Account	When modified account is saved.	[<plSync_Status_ITAG>]=LookupValue ("OCC_CUST_LOV_ACCOUNT_1","Sync ON")

Workflow Name	Record Type	Trigger Event	Workflow Rule Condition
Address-Insert	Address	When new address record is saved.	No rule.
Address-Update	Address	When modified address record is saved.	No rule.
Address-Delete	Address	When address record is deleted.	No rule.

After you define workflow rule conditions, you must create and configure an integration event for several accounts and address workflows. This table lists the workflows for which you must create integration events and the configuration data that you must use:

Workflow Name	Action Name for Integration Event Creation	Configuration Data
Account-Delete	Account-Delete	No configuration required.
Account-Insert	Account-Insert	Select these fields for tracking: <ul style="list-style-type: none"> • Account Currency • Account Name • Account Type • Customer Type • Industry Id • Integration Message • Integration Status • Main Fax # • Main Phone # • Number of Employees • Parent Account Id • Related Account Id • Status • Web Site
Account-Update	Account-Update	Select these fields for tracking: <ul style="list-style-type: none"> • Account Currency • Account Name • Account Type • Customer Type • Industry Id • Integration Message • Integration Status • Main Fax #

Workflow Name	Action Name for Integration Event Creation	Configuration Data
		<ul style="list-style-type: none"> • Main Phone # • Number of Employees • Parent Account Id • Related Account ID • Status • Web Site
Address-Delete	Address-Delete	No configuration required.
Address-Insert	Address-Insert	Select these fields for tracking: <ul style="list-style-type: none"> • Address 3 • City • Country • County • Description • Postal Code • Province • State • Street Address • Street Address 2
Address-Update	Address-Update	Select these fields for tracking: <ul style="list-style-type: none"> • Address 3 • City • Country • County • Description • Postal Code • Province • State • Street Address • Street Address 2

Defining Workflow Rule Conditions

To define workflow rule conditions:

1. Log in to CRM On Demand.
2. On the Welcome page, click the Admin link.
3. On the Admin Homepage, click the Workflow Configuration link in the Business Process Management section.

4. On the Workflow Rules List page, click the Edit link next to the work flow rule that you want to update.
5. On the Workflow Rule Edit page, use the Expression Builder to update the workflow rule condition.
6. Complete the steps for the Account - Delete, Account - Insert, and Account - Update workflows.

Creating and Configuring Integration Events

To create integration events:

1. Log in to CRM On Demand.
2. On the welcome page, click the Admin link.
3. On the Admin Homepage, click the Workflow Configuration link in the Business Process Management section.
4. On the Workflow Rules List page, click the name of the workflow rule that you want to update.
5. On the Workflow Rule Detail page, select Create Integration Event from the Action menu.
6. On the Workflow Action Edit page:
 - a. Specify the action name in the Action Name field.
 - b. Specify the default queue in the Default Queue field.
 - c. Select the Active option.
 - d. Click Save.

To configure integration events:

1. Access the Workflow Rule Details page for the selected workflow item.
2. Click the Configure link for the integration event that you want to configure.
3. Select the specified fields for tracking and then click Save.

Note: After changing an integration event or workflow, users must log out of CRM On Demand to clear the cache.

Modifying AIACompositeScheduler

AIACompositeScheduler is a utility component that is used by Process Integration Packs (PIP) to schedule a Service-Oriented Architecture (SOA) composite to be invoked at the specified time interval. For example, it can schedule a SOA composite to be invoked every 30 seconds. It supports scheduling composites in cluster environment as well.

Properties of AIACompositeScheduler are specified in web.xml. Administrators can change these properties dynamically through a deployment plan.

For more information about how to modify AIACompositeScheduler, see *Oracle Application Integration Architecture Process Integration Pack Utilities Guide*, "AIACompositeScheduler," Modifying AIACompositeScheduler Properties.

Describing 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 relationships in a persistent way so that others can refer to it.

For more information, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1* and the *Oracle Fusion Middleware Developer's Guide for Oracle SOA Suite 11g Release 1 (11.1.1)*, "Working with Cross References", "Creating Cross References."

Cross-Reference Tables for Lead to Order

This table lists the cross-references for the Lead to Order PIP:

XREFTABLENAME	COLUMN NAME	DESCRIPTION	USAGE
CUSTOMERPARTY_ACCOUNTID	COMMON	system-generated GUID	Lookup/populated during customer flow.
	JDEE1_01	Customer Number and Company	Lookup/populated during customer flow.
	CRMOD_01	Address ID	Lookup/populated during customer flow.
CUSTOMERPARTY_ACCOUNTSITEID	COMMON	system-generated GUID	Lookup/populated during customer flow.
	JDEE1_01	Address Book Number or Alternate Address Key	Lookup/populated during customer flow.
	CRMOD_01	Address ID	Lookup/populated during customer flow.
CUSTOMERPARTY_ADDRESSID	COMMON	system-generated GUID	Lookup/populated during customer flow.
	JDEE1_01	Address Book Number or Alternate Address Key	Lookup/populated during customer flow.
	CRMOD_01	Account ID	Lookup/populated during customer flow.
CUSTOMERPARTY_CONTACT_EMAILCOMMID	COMMON	system-generated GUID	Lookup/populated during customer flow.
	JDEE1_01	Address Book Number, Who's Who (line zero), Email Key	Lookup/populated during customer flow.
	CRMOD_01	Account ID	Lookup/populated during customer flow.

XREFTABLENAME	COLUMN NAME	DESCRIPTION	USAGE
CUSTOMERPARTY_CONTACT_FAXCOMMID	COMMON	system-generated GUID	Lookup/populated during customer flow.
	JDEE1_01	Address Book Number, Who's Who (line zero), Fax Key	Lookup/populated during customer flow.
	CRMOD_01	Account ID	Lookup/populated during customer flow.
CUSTOMERPARTY_CONTACT_PHONECOMMID	COMMON	system-generated GUID	Lookup/populated during customer flow.
	JDEE1_01	Address Book Number, Who's Who (line zero), Phone Key	Lookup/populated during customer flow.
	CRMOD_01	Account ID	Lookup/populated during customer flow.
CUSTOMERPARTY_CONTACTID	COMMON	system-generated GUID	Lookup/populated during customer flow.
	JDEE1_01	Address Book Number and Who's Who (line zero)	Lookup/populated during customer flow.
	CRMOD_01	Account ID	Lookup/populated during customer flow.
CUSTOMERPARTY_LOCATIONREFID	COMMON	system-generated GUID	Lookup/populated during customer flow.
	JDEE1_01	Address Book Number or Alternate Address Key	Lookup/populated during customer flow.
	CRMOD_01	Address ID	Lookup/populated during customer flow.
CUSTOMERPARTY_PARTYCONTACTID	COMMON	system-generated GUID	Lookup/populated during customer flow.
	JDEE1_01	Address Book Number and Who's Who (line zero)	Lookup/populated during customer flow.
	CRMOD_01	Account ID	Lookup/populated during customer flow.
CUSTOMERPARTY_PARTYID	COMMON	system-generated GUID	Lookup/populated during customer flow. Lookup during opportunity flow gets COMMON based on CRM On Demand value. Lookup during opportunity flow gets COMMON based on CRM On Demand value and EnterpriseOne based

XREFTABLENAME	COLUMN NAME	DESCRIPTION	USAGE
			on COMMON value.
	JDEE1_01	Customer Address Book Number	Lookup/populated during customer flow. Lookup during opportunity flow gets EnterpriseOne based on COMMON value.
	CRMOD_01	Account ID	Lookup/populated during customer flow. Lookup during opportunity flow gets COMMON based on CRM On Demand value.
CUSTOMERPARTY_ PARTYLOCATIONID	COMMON	system-generated GUID	Lookup/populated during customer flow.
	JDEE1_01	Address Book Number or Alternate Address Key	Lookup/populated during customer flow.
	CRMOD_01	Account ID	Lookup/populated during customer flow.
ITEM_ITEMID	COMMON	system-generated GUID	Lookup/populated during customer flow.
	JDEE1_01	Item ID	Lookup/populated during customer flow.
	CRMOD_01	Product ID	Lookup/populated during product flow and order (opportunity) flow.

Handling Errors

This section provides an overview of error handling and resequencing, and discusses how to:

- Apply resequencing and error handling.
- Set up the resequencer for batch processing.

Understanding Error Handling

The Lead to Order PIP uses the mediator resequencer to manage errors and failures during web service processing.

No PIP-specific errors are issued by the Lead to Order services within the AIA system.

For more information about the errors caused by CRM On Demand or JD Edwards EnterpriseOne, review the product documentation for the programs or objects that you are using.

For more information, see *Oracle Fusion Middleware Infrastructure Components and Utilities User's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Setting Up and Using Error Handling and Logging."

Note: When processing opportunity data between CRM On Demand and JD Edwards EnterpriseOne, some error notifications might occur in JD Edwards EnterpriseOne; they will be sent to the JD Edwards EnterpriseOne Work Center. If any of the order or quote integration processes do not finish as expected, check the JD Edwards EnterpriseOne Work Center for error messages before troubleshooting other areas of the integration.

For more information, see *JD Edwards EnterpriseOne Tools 8.98 Foundation Guide*, “Working With Messages.”

Applying Resequencing and Error Handling

The Lead to Order PIP uses the mediator resequencer feature to manage any errors or failures during web service processing. The resequencer introduces a data store that stores failed messages until the system successfully processes them. If the message fails, it remains in the resequencer store and blocks any other messages that belong to the same group.

Resequencing is enabled for these services:

- ItemJDEE1JMSConsumer_RS
- CustomerJDEE1JMSConsumer_RS
- CustomerCRMODRoutingService
- SyncItemCRMODRoutingService
- SyncCustomerCRMODRoutingService

ItemJDEE1JMSConsumer_RS and CustomerJDEE1JMSConsumer_RS are initiated before the Item and Customer EnterpriseOne requester ABCS services in their respective flows, and they protect the item and customer flows from EnterpriseOne to CRM On Demand. If an error occurs in either of these flows, the message remains in the resequencer store that is associated with the mediator, and the system locks the group. For item processing, the group is defined by item number. For customer processing, the group is defined by a concatenation of address number and company. For example, if an add message for item 1111 fails and the system attempts to process an update message for item 1111, then the update message is not processed. It remains in the resequencer store along with the add message until the system successfully processes the add message.

Note: This process does not apply to batch updates or synchronization of customer or item records.

The CustomerCRMODRoutingService is initiated before the Customer CRM On Demand requester ABCS services in the flow, and it protects the customer flow from CRM On Demand to EnterpriseOne. The group is defined by the CRM On Demand account ID.

The SyncItemCRMODRoutingService and SyncCustomerCRMODRoutingService are used during the bulk data load and synchronization processes, and they function differently than the other services with regard to the resequencer. These services are both initiated before the CRM On Demand provider ABCS services so that they protect only against the errors in the provider or the services that it calls during the batch load processes. If an error occurs in the requester ABCS or EBS, you must resubmit the batch from the batch applications in EnterpriseOne. The main purpose of the resequencer during batch processing is to throttle the provider processing so that all messages are split into a configurable number of groups. By default, the system creates four groups, which are named 1, 2, 3, and 4.

After unlocking the group, the message that contained the failed record will be reprocessed. Therefore, you should identify and correct the error before unlocking the group. After the failed message is successfully processed, the system processes any messages that follow it in the same group.

If you click a fault message, the fault message window appears with details of the fault. If you click Retry or Recover, then the Oracle Mediator Service Engine retries to process the message. After the failed message is successfully processed, the system processes any messages that follow it in the same group.

Therefore, you should identify and correct the error before retrying and unlocking the group. If you click Abort, it terminates the faulted message, unlocks the group, and resumes processing from the next message in the sequence.

Viewing EBO Implementation Maps

For more information about using XSL Mapping Analyzer (XMAN), see *Oracle Fusion Middleware Infrastructure Components and Utilities User's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, Using the XSL Mapping Analyzer.

For more information about how services are mapped, see the My Oracle Support document: *EBO Implementation Maps (EIMs) 881022.1*.

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

DVMs are static in nature, though administrators can add additional maps as needed. Transactional business processes never update DVMs, they only read from them. They are stored in XML files and cached in memory at runtime.

DVM types are seeded for the Lead to Order flows, and administrators can extend the list of mapped values by adding more maps. The DVM data should be in sync with what the participating applications use. This sync-up should be done before you run any initial loads or initiate any incremental transactional flows.

Note: DVMs are not automatically synchronized. Therefore, if new UDC values are added in JD Edwards EnterpriseOne or if new pick list values are added in CRM On Demand, then you must manually add those values to the appropriate DVM, if applicable.

This section contains the DVMs for the Lead to Order PIP.

Important! The CRMOD_01 values for the CUSTOMERPARTY_SICCODE DVM must be updated with the values that are specific to the CRMOD endpoint. To get these values, you must run the GetIndustryIdCRMONDemandUtil process from the EM Console.

To run the service, access the EM Console dashboard and select the GetIndustryIdCRMONDemandUtil. Populate ODHostId with the CRMOD endpoint, for example, CRMOD_01. You must also populate Name under Industry with all of the values that are available in the CRM On Demand instance.

To find these values in CRM On Demand: navigate to Admin > Data Rules & Assignment > Industry Definition. Here you will find the list of possible Industry names and their associated SIC codes.

To add additional values, click the green plus sign (+) below Industry in the EM Console. After you enter all of the values, click Post XML Message. You should select Save Test to avoid losing data. The web service will run and return the ID of each of the values passed.

Next, update the DVMs.

For more information about how to update DVMs, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "How to Work with Domain Value Maps in \$AIA_HOME/AIAMetaData/dvm."

The customer integration flow will not function properly if you do not complete this step.

For more information, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Developing Custom XPath Functions."

This table lists and describes the DVMs for the Lead to Order PIP:

DVM	DVM Column Name	Comments
ADDRESS_COUNTRYID	COMMON, CRMOD_01, JDEE1_01	Country Codes
CURRENCY_CODE	COMMON, CRMOD_01, JDEE1_01	Currency Codes
CUSTOMERPARTY_STATUSCODE	JDEE1_01, CRMOD_01, COMMON	Customer Party Status
SITEUSAGE_CODE	COMMON, SEBL_01, PORTAL_01, EBIZ_01	Site Usage Code
CUSTOMERPARTY_PHONECOMMUNICATION_USECODE	JDEE1_01, COMMON	Customer Phone Communication Use Code
CUSTOMERPARTY_EMAILCOMMUNICATION_USECODE	JDEE1_01, COMMON	Customer Email Communication Use Code
CUSTOMERPARTY_FAXCOMMUNICATION_USECODE	JDEE1_01, COMMON	Customer Fax Communication Use Code
PAYMENT_TERM	JDEE1_01, COMMON	Payment Term

DVM	DVM Column Name	Comments
PROVINCE	JDEE1_01, CRM0D_01, COMMON	Customer Party Province Name
STATE	JDEE1_01, CRM0D_01, COMMON	State Name
CUSTOMERPARTY_DUNBRADSTREETCREDITRATING	JDEE1_01, COMMON	Customer Dun Bradstreet Credit Rating
CUSTOMERPARTY_SICCODE	COMMON, JDEE1_01, CRM0D_01	Standard Industry Code
CUSTOMERPARTY_TAXCODE	JDEE1_01, COMMON	Customer Tax Code
CUSTOMERPARTY_AUTOMATICPAYMENTENABLEDINDICATOR	COMMON, JDEE1_01	Customer Automatic Payment Enabled
CUSTOMERPARTY_DELIVERYNOTEPRINTINDICATOR	COMMON, JDEE1_01	Customer Delivery Note Print Indicator
CUSTOMERPARTY_FREIGHTHBILLTYPECODE	JDEE1_01, COMMON	Customer Freight Bill Type Code
CUSTOMERPARTY_HOLDBILLINDICATOR	JDEE1_01, COMMON	Customer Hold Bill Indicator
CUSTOMERPARTY_INVOICECONSOLIDATIONINDICATOR	COMMON, JDEE1_01	Customer Invoice Consolidation Indicator
LANGUAGE_CODE	COMMON, JDEE1_01	Customer Language Code
CUSTOMERPARTY_MANUALINVOICECREATIONALLOWEDINDICATOR	COMMON, JDEE1_01	Customer Manual Invoice Creation Allowed
CUSTOMERPARTY_MEDIATYPECODE	JDEE1_01, COMMON	Customer Media Type Code
CUSTOMERPARTY_POREQUIREDINDICATOR	COMMON, JDEE1_01	Customer PO Required Indicator
CUSTOMERPARTY_STATEMENTDELIVERYINDICATOR	COMMON, JDEE1_01	Customer Statement Delivery Indicator
CUSTOMERPARTY_HOLDORDERREASONCODE	JDEE1_01, COMMON	Customer Hold Order Reason Code
CUSTOMERPARTY_ITEMSUBSTITUTIONALLOWEDINDICATOR	COMMON, JDEE1_01	Customer Item Substitution Allowed Indicator
CUSTOMERPARTY_PRIORITYPROCESSINGCODE	JDEE1_01, COMMON	Customer Priority Processing Code
CUSTOMERPARTY_VOLUMEDISPLAYUOMCODE	JDEE1_01, COMMON	Customer Volume Display UOM Code
CUSTOMERPARTY_WEIGHTDISPLAYUOMCODE	JDEE1_01, COMMON	Customer Weight Display UOM Code

DVM	DVM Column Name	Comments
CUSTOMERPARTY_BACKORDERALLOWEDINDICATOR	COMMON, JDEE1_01	Customer Backorder Allowed Indicator
CUSTOMERPARTY_BACKORDERCANCELINDICATOR	COMMON, JDEE1_01	Customer Back order Cancel Indicator
CUSTOMERPARTY_FREIGHTTERMCODE	JDEE1_01, COMMON	Customer Freight Term Code
CUSTOMERPARTY_PACKAGINGCODEREQUIREDINDICATOR	COMMON, JDEE1_01	Customer Packaging Code Required Indicator
CUSTOMERPARTY_PARTIALORDERLINESHIPMENTALLOWEDINDICATOR	COMMON, JDEE1_01	Customer Partial Order Line Shipment Allowed Indicator
CUSTOMERPARTY_PARTIALORDERSHIPMENTALLOWEDINDICATOR	COMMON, JDEE1_01	Customer Partial Order Shipment Allowed Indicator
CUSTOMERPARTY_ROUTINGREQUIREDINDICATOR	COMMON, JDEE1_01	Customer Routing Required Indicator
CUSTOMERPARTY_TRANSPORTATIONMETHODREQUIREDINDICATOR	COMMON, JDEE1_01	Customer Transportation Method Required Indicator
CUSTOMERPARTY_WEIGHTCODEREQUIREDINDICATOR	COMMON, JDEE1_01	Customer Weight Code Required Indicator
CUSTOMERPARTY_LEVELCODE	JDEE1_01, COMMON, CRMOD_01	Customer Level Code
CUSTOMERPARTY_TAXCODE	JDEE1_01, COMMON	Customer Tax Code
CUSTOMERPARTY_TYPECODE	JDEE1_01, COMMON, CRMOD_01	Customer Type Code
CUSTOMERPARTY_CLASSIFICATIONCODE_CATEGORYCODE001	COMMON, JDEE1_01	Customer Classification Code Category Code 001
CUSTOMERPARTY_CLASSIFICATIONCODE_CATEGORYCODE002	COMMON, JDEE1_01	Customer Classification Code Category Code 002
CUSTOMERPARTY_CLASSIFICATIONCODE_CATEGORYCODE003	COMMON, JDEE1_01	Customer Classification Code Category Code 003
CUSTOMERPARTY_CLASSIFICATIONCODE_CATEGORYCODE004	COMMON, JDEE1_01	Customer Classification Code Category Code 004
CUSTOMERPARTY_CLASSIFICATIONCODE_CATEGORYCODE005	COMMON, JDEE1_01	Customer Classification Code Category Code 005
CUSTOMERPARTY_CLASSIFICATIONCODE_CATEGORYCODE006	COMMON, JDEE1_01	Customer Classification Code Category Code 006
CUSTOMERPARTY_CLASSIFICATIONCODE_CATEGORYCODE007	COMMON, JDEE1_01	Customer Classification Code Category Code 007
CUSTOMERPARTY_CLASSIFICATIONCODE	COMMON, JDEE1_01	Customer Classification Code

DVM	DVM Column Name	Comments
DE_CATEGORYCODE008		Category Code 008
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE009	COMMON, JDEE1_01	Customer Classification Code Category Code 009
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE010	COMMON, JDEE1_01	Customer Classification Code Category Code 010
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE011	COMMON, JDEE1_01	Customer Classification Code Category Code 011
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE012	COMMON, JDEE1_01	CustomerClassification Code Category Code 012
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE013	COMMON, JDEE1_01	Customer Classification Code Category Code 013
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE014	COMMON, JDEE1_01	Customer Classification Code Category Code 014
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE015	COMMON, JDEE1_01	Customer Classification Code Category Code 015
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE016	COMMON, JDEE1_01	Customer Classification Code Category Code 016
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE017	COMMON, JDEE1_01	Customer Classification Code Category Code 017
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE018	COMMON, JDEE1_01	Customer Classification Code Category Code 018
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE019	COMMON, JDEE1_01	Customer Classification Code Category Code 019
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE020	COMMON, JDEE1_01	Customer Classification Code Category Code 020
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE021	COMMON, JDEE1_01	Customer Classification Code Category Code 021
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE022	COMMON, JDEE1_01	Customer Classification Code Category Code 022
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE023	COMMON, JDEE1_01	Customer Classification Code Category Code 023
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE024	COMMON, JDEE1_01	Customer Classification Code Category Code 024
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE025	COMMON, JDEE1_01	Customer Classification Code Category Code 025
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE026	COMMON, JDEE1_01	Customer Classification CodeCategory Code 026
CUSTOMERPARTY_CLASSIFICATIONCO DE_CATEGORYCODE027	COMMON, JDEE1_01	Customer Classification Code Category Code 027
CUSTOMERPARTY_CLASSIFICATIONCO	COMMON, JDEE1_01	Customer Classification Code

DVM	DVM Column Name	Comments
DE_CATEGORYCODE028		Category Code 028
CUSTOMERPARTY_CLASSIFICATIONCODE_CATEGORYCODE029	COMMON, JDEE1_01	Customer Classification Code Category Code 029
CUSTOMERPARTY_CLASSIFICATIONCODE_CATEGORYCODE030	COMMON, JDEE1_01	Customer Classification Code Category Code 030
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_CATEGORYCODE001	JDEE1_01, COMMON	Customer Account Classification Code Category Code 001
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_CATEGORYCODE002	JDEE1_01, COMMON	Customer Account Classification Code Category Code 002
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_CATEGORYCODE003	JDEE1_01, COMMON	Customer Account Classification Code Category Code 003
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_CATEGORYCODE004	JDEE1_01, COMMON	Customer Account Classification Code Category Code 004
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_CATEGORYCODE005	JDEE1_01, COMMON	Customer Account Classification Code Category Code 005
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_CATEGORYCODE006	JDEE1_01, COMMON	Customer Account Classification Code Category Code 006
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_CATEGORYCODE007	JDEE1_01, COMMON	Customer Account Classification Code Category Code 007
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_CATEGORYCODE008	JDEE1_01, COMMON	Customer Account Classification Code Category Code 008
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_CATEGORYCODE009	JDEE1_01, COMMON	Customer Account Classification Code Category Code 009
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_CATEGORYCODE010	JDEE1_01, COMMON	Customer Account Classification Code Category Code 010
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_CATEGORYCODE011	JDEE1_01, COMMON	Customer Account Classification Code Category Code 011
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_CATEGORYCODE012	JDEE1_01, COMMON	Customer Account Classification Code Category Code 012
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_CATEGORYCODE013	JDEE1_01, COMMON	Customer Account Classification Code Category Code 013

DVM	DVM Column Name	Comments
ATIONCODE_ CATEGORYCODE013		Code 013
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE014	JDEE1_01, COMMON	Customer Account Classification Code Category Code 014
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE015	JDEE1_01, COMMON	Customer Account Classification Code Category Code015
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE016	JDEE1_01, COMMON	Customer Account Classification Code Category Code 016
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE017	JDEE1_01, COMMON	Customer Account Classification Code Category Code 017
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE018	JDEE1_01, COMMON	Customer Account Classification Code Category Code 018
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE019	JDEE1_01, COMMON	Customer Account Classification Code Category Code 019
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE020	JDEE1_01, COMMON	Customer Account Classification Code Category Code 020
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE021	JDEE1_01, COMMON	Customer Account Classification Code Category Code 021
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE022	JDEE1_01, COMMON	Customer Account Classification Code Category Code 022
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE023	JDEE1_01, COMMON	Customer Account Classification Code Category Code 023
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE024	JDEE1_01, COMMON	Customer Account Classification Code Category Code 024
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE025	JDEE1_01, COMMON	Customer Account Classification Code Category Code 025
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE026	JDEE1_01, COMMON	Customer Account Classification Code Category Code 026
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE027	JDEE1_01, COMMON	Customer Account Classification Code Category Code 027

DVM	DVM Column Name	Comments
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE028	JDEE1_01, COMMON	Customer Account Classification Code Category Code 028
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE029	JDEE1_01, COMMON	Customer Account Classification Code Category Code 029
CUSTOMERPARTYACCOUNT_CLASSIFICATIONCODE_ CATEGORYCODE030	JDEE1_01, COMMON	Customer Account Classification Code Category Code 030
ITEM_STOCKINGALLOWEDINDICATOR	JDEE1_01, COMMON	Item Stocking Allowed Indicator
ITEM_INVOICINGENABLEDINDICATOR	JDEE1_01, COMMON	Item Invoicing Enabled Indicator
ITEM_PURCHASINGALLOWEDINDICATOR	JDEE1_01, COMMON	Item Purchasing Allowed Indicator
ITEM_ITEMSPECIFICATIONGROUP_CYCLECOUNTCATEGORY	JDEE1_01, COMMON	Item Specification Group Cycle Count Category
ITEM_ITEMSPECIFICATIONGROUP_PURCHASINGREPORTCODE1	JDEE1_01, COMMON	Item Specification Group Purchasing Report Code 1
ITEM_ITEMSPECIFICATIONGROUP_PURCHASINGREPORTCODE2	JDEE1_01, COMMON	Item Specification Group Purchasing Report Code 2
ITEM_ITEMSPECIFICATIONGROUP_PURCHASINGREPORTCODE3	JDEE1_01, COMMON	Item Specification Group Purchasing Report Code 3
ITEM_ITEMSPECIFICATIONGROUP_PURCHASINGREPORTCODE4	JDEE1_01, COMMON	Item Specification Group Purchasing Report Code 4
ITEM_ITEMSPECIFICATIONGROUP_PURCHASINGREPORTCODE5	JDEE1_01, COMMON	Item Specification Group Purchasing Report Code 5
ITEM_ITEMSPECIFICATIONGROUP_PURCHASINGREPORTCODE6	JDEE1_01, COMMON	Item Specification Group Purchasing Report Code 6
ITEM_ITEMSPECIFICATIONGROUP_PURCHASINGREPORTCODE7	JDEE1_01, COMMON	Item Specification Group Purchasing Report Code 7
ITEM_ITEMSPECIFICATIONGROUP_PURCHASINGREPORTCODE8	JDEE1_01, COMMON	Item Specification Group Purchasing Report Code 8
ITEM_ITEMSPECIFICATIONGROUP_PURCHASINGREPORTCODE9	JDEE1_01, COMMON	Item Specification Group Purchasing Report Code 9
ITEM_ITEMSPECIFICATIONGROUP_PURCHASINGREPORTCODE10	JDEE1_01, COMMON	Item Specification Group Purchasing Report Code 10
ITEM_ITEMSPECIFICATIONGROUP_SALESREPORTINGCODE1	JDEE1_01, COMMON	Item Specification Group Sales Report Code 1
ITEM_ITEMSPECIFICATIONGROUP_SALESREPORTINGCODE2	JDEE1_01, COMMON	Item Specification Group Sales Report Code 2

DVM	DVM Column Name	Comments
ITEM_ITEMSPECIFICATIONGROUP_ SALESREPORTINGCODE3	JDEE1_01, COMMON	Item Specification Group Sales Report Code 3
ITEM_ITEMSPECIFICATIONGROUP_ SALESREPORTINGCODE4	JDEE1_01, COMMON	Item Specification Group Sales Report Code 4
ITEM_ITEMSPECIFICATIONGROUP_ SALESREPORTINGCODE5	JDEE1_01, COMMON	Item Specification Group Sales Report Code 5
ITEM_ITEMSPECIFICATIONGROUP_ SALESREPORTINGCODE6	JDEE1_01, COMMON	Item Specification Group Sales Report Code 6
ITEM_ITEMSPECIFICATIONGROUP_ SALESREPORTINGCODE7	JDEE1_01, COMMON	Item Specification Group Sales Report Code 7
ITEM_ITEMSPECIFICATIONGROUP_ SALESREPORTINGCODE8	JDEE1_01, COMMON	Item Specification Group Sales Report Code 8
ITEM_ITEMSPECIFICATIONGROUP_ SALESREPORTINGCODE9	JDEE1_01, COMMON	Item Specification Group Sales Report Code 9
ITEM_ITEMSPECIFICATIONGROUP_ SALESREPORTINGCODE10	JDEE1_01, COMMON	Item Specification Group Sales Report Code 10
ITEM_ITEMSPECIFICATIONGROUP_ SHIPPINGCOMMODITYCLASS	JDEE1_01, COMMON	Item Specification Group Shipping Commodity Class
ITEM_ITEMSPECIFICATIONGROUP_ SHIPPINGCONDITIONSCODE	JDEE1_01, COMMON	Item Specification Group Shipping Conditions Code
ITEM_TYPE	JDEE1_01, COMMON, CRMOD_01	ItemType Code
JDEE1_ACTION_CODE	COMMON, JDEE1_01	The action taken on a specifcentity.
JDEE1_PHONE_FAX	JDEE1_01, FAX_FLAG	Indicates which phone types in JD Edwards EnterpriseOne correspond to fax numbers or regular phone numbers.
JDEE1_TRUE_FALSE	COMMON, JDEE1_01	<p>JD Edwards EnterpriseOne web</p> <p>Services expect true or false values for Boolean fields. EBO format uses yes and</p> <p>No values. This DVM is used to translate the values. The</p> <p>Active/Inactive values are for Customer Status.</p> <p>They are intentionally backwards to comply with JD Edwards EnterpriseOne.</p>

Setting Configuration Properties

Before you can use the Lead to Order services, you must set up configuration 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 Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Building AIA Integration Flows," How to Set Up AIA Workstation.

This table lists the properties for the CreateItemCRMODProvABCSEImpl service:

Property Name	Values/Default Value	Description and Values
Default.SystemID	CRMOD_01	System code defined in OER from which requests originate for this process. Default=CRMOD_01.
Routing.ProductWS EndPointCRMOnDemand. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URI property.
Routing.ProductWS EndPointCRMOnDemand. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT> /AIAValidationSystemServlet/syncre sponsesimulator	CAVS Endpoint URI, when CAVS is enabled.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the UpdateItemCRMODProvABCSEImpl service:

Property Name	Values/Default Value	Description
Default.SystemID	CRMOD_01	System code, defined in OER, from which requests originate for this process.
Routing.ProductWS	true/false Default=false	Property to govern whether the

Property Name	Values/Default Value	Description
EndPointCRMOnDemand. RouteToCAVS		service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URI property.
Routing.ProductWS EndPointCRMOnDemand. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT> /AIAValidationSystemServlet/syncre sponsesimulator	CAVS Endpoint URI, when CAVS is enabled.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the DeleteltemCRMOnDemandProvABCSExtension service:

Property Name	Values/Default Value	Description
Default.SystemID	CRM01_01	System code, defined in OER, from which requests originate for this process.
Routing.ProductWS EndPointCRMOnDemand. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the end point specified in the CAVS. Endpoint URI property.
Routing.ProductWS EndPointCRMOnDemand. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT> /AIAValidationSystemServlet/syncre sponsesimulator	CAVS Endpoint URI, when CAVS is enabled.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the

Property Name	Values/Default Value	Description
		predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the SyncItemListCRMODProvABCSEImpl service:

Property Name	Values/Default Value	Description
Default.SystemID	CRM0D_01	System code, defined in OER, from which requests originate for this process.
Routing.ProductWS EndPointCRMOnDemand. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.ProductWS EndPointCRMOnDemand. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT> /AIAValidationSystemServlet/syncre sponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
ABCSEExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSEExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the CreateItemJDEE1ReqABCSEImpl service:

Property Name	Values/Default Value	Description
Routing.ItemEBS. CreateItem.RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.ItemEBS. CreateItem.CAVS.Endpoint URI	http://<SOA_HOST>:<SOA_PORT>/ AIAValidationSystemServlet/asyncre sponsesimulator	CAVS Endpoint URL, when CAVS is enabled.

Property Name	Values/Default Value	Description
Sender.SystemID	JDEE1_01	System code, defined in OER, from which requests originate for this process.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the UpdateItemJDEE1ReqABCSEImpl service:

Property Name	Values/Default Value	Description
Routing.ItemEBS. CreateItem.RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.ItemEBS. CreateItem.CAVS.Endpoint URI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/asyn cresponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Sender.SystemID	JDEE1_01	System code, defined in OER, from which requests originate for this process.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the DeleteItemJDEE1ReqABCSImpl service:

Property Name	Values/Default Value	Description
Routing.ItemEBS. CreateItem.RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.ItemEBS. CreateItem.CAVS.Endpoint URI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/asyn responsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Sender.SystemID	JDEE1_01	System code, defined in OER, from which requests originate for this process.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the SyncItemListJDEE1ReqABCSImpl service:

Property Name	Values/Default Value	Description
Routing.ItemEBS. CreateItem.RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.SyncItemList. Create.CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/asyn responsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Sender.SystemID	JDEE1_01	System code, defined in OER, from which requests originate for this process.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to

Property Name	Values/Default Value	Description
		true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the CreateCustomerAddressCRMODReqABCSExtImpl service:

Property Name	Values/Default Value	Description
Routing.CustomerParty EBS.UpdateCustomerParty. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.CustomerParty EBS.UpdateCustomerParty. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/asyn cresponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Sender.SystemID	CRMOD_01	System code, defined in OER, from which requests originate for this process.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the pre-defined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ProcessIntegrationCustom Transform	true/false Default=true	Property that governs whether the ABCS should include the custom fields required for the Lead to Order PIP. Because ABCS are supposed to be generic, this configuration allows for the custom fields to be processed only when indicated.

This table lists the properties for the UpdateCustomerAddressCRMODReqABCSImpl service:

Property Name	Values/Default Value	Description
Routing.CustomerParty EBS.UpdateCustomerParty. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.CustomerParty EBS.UpdateCustomerParty. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/asyn cresponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Sender.SystemID	CRMOD_01	System code, defined in OER, from which requests originate for this process.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ProcessIntegrationCustom Transform	true/false Default=false	Property that governs whether the ABCS should include the custom fields required for the Lead to Order PIP. Because ABCS are supposed to be generic, this configuration allows for the custom fields to be processed only when indicated.

This table lists the properties for the DeleteCustomerAddressCRMODReqABCSImpl service:

Property Name	Values/Default Value	Description
Routing.CustomerParty EBS.UpdateCustomerParty. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.

Property Name	Values/Default Value	Description
Routing.CustomerParty EBS.UpdateCustomerParty. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/asyncreponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Sender.SystemID	CRMOD_01	System code, defined in OER, from which requests originate for this process.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ProcessIntegrationCustom Transform	true/false Default=true	Property that governs whether the ABCS should include the custom fields required for the Lead to Order PIP. Because ABCS are supposed to be generic, this configuration allows for the custom fields to be processed only when indicated.

This table lists the properties for the CreateCustomerJDEE1ReqABCSImpl service:

Property Name	Values/Default Value	Description
Routing.CustomerParty EBS.CreateCustomerParty. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.CustomerParty EBS.CreateCustomerParty. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/asyncreponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Sender.SystemID	JDEE1_01	System code, defined in OER, from which requests originate for this process.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA

Property Name	Values/Default Value	Description
		ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the UpdateCustomerJDEE1ReqABCSImpl service:

Property Name	Values/Default Value	Description
Routing.CustomerParty EBS.UpdateCustomerParty. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.CustomerParty EBS.UpdateCustomerParty. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/asyncreponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Sender.SystemID	JDEE1_01	System code, defined in OER, from which requests originate for this process.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the DeleteCustomerJDEE1ReqABCSImpl service:

Property Name	Values/Default Value	Description
Routing.CustomerParty EBS.DeleteCustomerParty. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS.

Property Name	Values/Default Value	Description
		Endpoint URL property.
Routing.CustomerParty EBS.DeleteCustomerParty. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/asyncreponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Sender.SystemID	JDEE1_01	System code, defined in OER, from which requests originate for this process.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the SyncCustomerJDEE1ReqABCImpl service:

Property Name	Values/Default Value	Description
Routing.CustomerParty EBS.SyncCustomerPartyList. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.CustomerParty EBS.SyncCustomerParty List.CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/asyncreponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Sender.SystemID	JDEE1_01	System code, defined in OER, from which requests originate for this process.

Property Name	Values/Default Value	Description
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the QueryOpportunityJDEE1ReqABCSExt service:

Property Name	Values/Default Value	Description
Routing.SalesOpportunityEBS.QuerySalesOpportunity.RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.SalesOpportunityEBS.QuerySalesOpportunity.CAVS. EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/asynresponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Sender.SystemID	JDEE1_01	System code, defined in OER, from which requests originate for this process.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PostProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

Property Name	Values/Default Value	Description
ABCSExtension.PostProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the CreateCustomerJDEE1ProvABCSEntImpl service:

Property Name	Values/Default Value	Description
Default.SystemID	JDEE1_01	System code, defined in OER, from which requests originate for this process.
Routing.Customer AndContactManager. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.Customer AndContactManager. JDEE1_01.EndpointURI	If the customer deploys EnterpriseOne BSSVs to WLS, this property should point to the Customer And Contact Manager web service, as noted here: https://[BSSV_SERVER]:[BSSV_PORT]/PY900/CustomerAndContactManager. If the customer is using WAS, this property should point to the BPEL process, Customer JDEE1 WAS Connector. http://[SOA_HOST]:[SOA_PORT]/soa-infra/services/default/CustomerJDEE1WASConnector/CustomerAndContactManagerWLSProxy	EndpointURI of JDEdwards EnterpriseOne service.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the UpdateCustomerJDEE1ProvABCServiceImpl service:

Property Name	Values/Default Value	Description
Default.SystemID	JDEE1_01	System code, defined in OER, from which requests originate for this process.
Routing.Customer AndContactManager. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.Customer AndContactManager. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/syncresponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Routing.Customer AndContactManager. JDEE1_01.EndpointURI	If the customer deploys EnterpriseOne BSSVs to WLS, this property should point to the Customer And Contact Manager web service, as noted here: https://[BSSV_SERVER]:[BSSV_PORT]/PY900/CustomerAndContactManager If the customer is using WAS, this property should point to the BPEL process, Customer JDEE1 WAS Connector. http://[SOA_HOST]:[SOA_PORT]/soa-infra/services/default/CustomerJDEE1WASConnector/CustomerAndContactManagerWLSProxy	Endpoint URL of JD Edwards EnterpriseOne service.
Routing.Customer Manager.RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.Customer Manager.JDEE1_01. EndpointURI	If the customer deploys E1 BSSVs to WLS, this property should point to the Customer Manager web service, as noted here: https://[BSSV_SERVER]:[BSSV_PORT]/PY900/CustomerManager If the customer is using WAS, this	Endpoint URL of JD Edwards EnterpriseOne service.

Property Name	Values/Default Value	Description
	property should point to the BPEL process, Get Customer JDEE1 WAS Connector. http://[SOA_HOST]:[SOA_PORT]/soa-infra/services/default/GetCustomerJDEE1WASConnector/CustomerManagerWLSProxy	
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the DeleteCustomerJDEE1ProvABCSImpl service:

Property Name	Values/Default Value	Description
Default.SystemID	JDEE1_01	System code, defined in OER, from which requests originate for this process.
Routing.CustomerAndContactManager.RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.CustomerAndContactManager.JDEE1_01.EndpointURI	If the customer deploys EnterpriseOne BSSVs to WLS, this property should point to the Customer And Contact Manager web service, as noted here: https://[BSSV_SERVER]:[BSSV_PORT]/PY900/CustomerAndContactManager If the customer is using WAS, this property should point to the BPEL process, Customer JDEE1 WAS Connector. http://[SOA_HOST]:[SOA_PORT]/soa-	Endpoint URL of JD Edwards EnterpriseOne service.

Property Name	Values/Default Value	Description
	infra/services/default/CustomerJDEE1WASConnector/CustomerAndContactManagerWLSProxy	
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the CreateCustomerCRMODProvABCSEImpl service:

Property Name	Values/Default Value	Description
Default.SystemID	CRM0D_01	System code, defined in OER, from which requests originate for this process.
Routing.AccountWS EndPointCRMOnDemand. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.AccountWS EndPointCRMOnDemand. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/synchronousresponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

Property Name	Values/Default Value	Description
ProcessIntegrationCustom Transform	true/false Default=false	Property that governs whether the ABCS should include the custom fields required for the Lead to Order PIP. Because ABCS are supposed to be generic, this configuration allows for the custom fields to be processed only when indicated.

This table lists the properties for the DeleteCustomerCRMODProvABCServiceImpl service:

Property Name	Values/Default Value	Description
Default.SystemID	CRMOD_01	System code, defined in OER, from which requests originate for this process.
Routing.AccountWS EndPointCRMODOnDemand.RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.AccountWS EndPointCRMODOnDemand.CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/synchronousresponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the UpdateCustomerCRMODProvABCServiceImpl service:

Property Name	Values/Default Value	Description
Default.SystemID	CRMOD_01	System code, defined in OER, from which requests originate for this process.

Property Name	Values/Default Value	Description
Routing.AccountWS EndPointCRMOnDemand. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.AccountWS EndPointCRMOnDemand. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/syncresponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ProcessIntegrationCustom Transform	true/false Default=true	Property that governs whether the ABCS should include the custom fields required for the Lead to Order PIP. Because ABCS are supposed to be generic, this configuration allows for the custom fields to be processed only when indicated.

This table lists the properties for the SyncCustomerCRMODProvABCSEImpl service:

Property Name	Values/Default Value	Description
Default.SystemID	CRM0D_01	System code, defined in OER, from which requests originate for this process.
Routing.AccountWS EndPointCRMOnDemand. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.

Property Name	Values/Default Value	Description
Routing.AccountWS EndPointCRMONDemand. CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/syncresponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the QueryOpportunityCRMOPProvABCSEImpl service:

Property Name	Values/Default Value	Description
Default.SystemID	CRMOP_01	System code, defined in OER, from which requests originate for this process.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the pre-defined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PostProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PostProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-in point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the CreateCustomerCRMReqABCImpl service:

Property Name	Values/Default Value	Description
Routing.CustomerParty EBS.CreateCustomerParty. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.CustomerParty EBS.CreateCustomerParty. CAVS.EndpointURI	http://<SOA_HOST>: <SOA_PORT>/AIAValidationSystemServlet/ asyncreponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Sender.SystemID	CRM0D_01	System code, defined in OER, from which requests originate for this process.
Routing.AccountWS EndPointCRMOnDemand. RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.AccountWS EndPointCRMOnDemand.CAVS. EndpointURI	http://<SOA_HOST>:<SOA_POR T>/AIAValidationSystemServlet/a syncreponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ProcessIntegrationCustom Transform	true/false Default=false	Property that governs whether the ABCS should include the custom fields required for the Lead to Order PIP. Because ABCS are supposed to be generic, this configuration allows for the custom fields to be processed only when indicated.

This table lists the properties for the UpdateCustomerCRMReqABCSImpl service:

Property Name	Values/Default Value	Description
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ProcessIntegrationCustom Transform	true/false Default=false	Property that governs whether the ABCS should include the custom fields required for the Lead to Order PIP. Because ABCS are supposed to be generic, this configuration allows for the custom fields to be processed only when indicated.
Routing.AccountWS EndPointCRMOnDemand.CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/syncresponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ProcessIntegrationCustom Transform	true/false Default=true	Property that governs whether the ABCS should include the custom fields required for the Lead to Order PIP. Because ABCS are supposed to be generic, this configuration allows for the custom fields to be processed only when indicated.

This table lists the properties for the DeleteCustomerCRMODReqABCSImpl service:

Property Name	Values/Default Value	Description
Routing.CustomerParty EBS.DeleteCustomer Party.RouteToCAVS	true/false Default=false	Property that governs whether the service should route the message to the CAVS endpoint. Default value is false, which does not route to CAVS. If set to true, it routes to CAVS using the endpoint specified in the CAVS. Endpoint URL property.
Routing.CustomerParty EBS.DeleteCustomer Party.CAVS.EndpointURI	http://<SOA_HOST>:<SOA_PORT>/AIAValidationSystemServlet/asyncresponsesimulator	CAVS Endpoint URL, when CAVS is enabled.
Sender.SystemID	CRMOD_01	System code, defined in OER, from which requests originate for this process.
ABCSExtension.PreProcess EBM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.
ABCSExtension.PreProcess ABM	true/false Default=false	Property that governs whether ABCS Extension is enabled at the predefined plug-into point. If set to true, then the Extension process (defined along AIA ABCS Extension guidelines) will be invoked.

This table lists the properties for the CustomerJDEE1WASConnector service:

Property Name	Values/Default Value	Description
Routing.Customer JDEE1WASConnector. EndpointURI	http://[WAS_HOST]:[WAS_PORT]/PY900_WEB/services/CustomerAndContactManagerHttpPort	Endpoint URI of JD Edwards EnterpriseOne service.

This table lists the properties for the GetCustomerJDEE1WASConnector service:

Property Name	Values/Default Value	Description
Routing.GetCustomer JDEE1WASConnector. EndpointURI	http://[WAS_HOST]:[WAS_PORT]/DV900_WEB/services/CustomerManagerHttpPort	Endpoint URI of JD Edwards EnterpriseOne service.

Modifying Default Routing Rules

Each PIP is delivered with a default set of routing rules. Routing rules are used to control where messages are sent in the system. In some instances, users might choose to update the default routing rules to better suit their business needs.

To modify routing rules:

1. Copy the EBS project to your local machine where JDeveloper is installed.

The EBS projects are located in this directory on the SOA server:

<AIA_HOME>\pips\JDEtoOnDemandLeadToOrder\EBS\.

2. Open .jpr file in JDeveloper (for example, CustomerPartyEBSV2.jpr)
3. In JDeveloper, open .mplan file within the project directory. (for example, CustomerPartyEBSV2.mplan)
4. Modify the routing rules using the design mode or source mode.
5. Save your changes.
6. Deploy the EBS projects to the target server.

Appendix A: JD Edwards EnterpriseOne Realtime Events

This appendix provides the details of the RTCMOUT2 and RTIMOUT realtime events (RTEs) that are used by the Lead to Order process integration pack (PIP).

Note: The RTCMOUT2 RTE was created for the Lead to Order PIP and, therefore, the documentation for that RTE is included here. The RTIMOUT is an existing RTE that is used by the Lead to Order PIP as well as other event-driven processes in JD Edwards EnterpriseOne. Please refer to the existing JD Edwards EnterpriseOne documentation for additional information about the RTIMOUT RTE.

For more information, see *JD Edwards EnterpriseOne Application Real Time Events Implementation Guide*.

RTCMOUT2

The RTCMOUT2 RTE structure publishes customer data in a format that can be easily consumed by the Lead to Order customer integration.

JD Edwards EnterpriseOne uses RTCMOUT2 to notify third-party systems of customer additions, changes, or deletions.

Event Name	RTCMOUT2
Event Description	RTCMOUT2
Event Type	RTE
Event Category	Container
	Container event for:
	RTCMHDR2
	RTCMPHOUT2
	RTCMEAOUT2
	RTCMAAOUT
	RTCMCCOUT2
	RTABCCOUT
Product Code	01
Reliable Delivery	1
Delivery Timeout	
Threshold	0

For more information about the fields, conceptual approach, and processes that can initiate this event, see the appropriate RTEs that are contained by this event.

Special Setup

RTCMOUT2 has some additional special setup requirements due to the logic in the realtime wrapper.

The processing option for version ZJDE0001 of the Customer Master Real Time Event Wrapper Application program (P0100077) determines whether RTCMOUT2 is always sent or is sent only if certain fields are changed. The purpose of the processing option is to enable filtering of the outbound event, RTCMOUT2.

When the processing option is 0, blank, or null, no filtering occurs, and RTCMOUT2 is sent whenever a change is made to a customer master record. If the processing option is 1, an event is sent only if one of the five territory alignment fields has been changed. Events always occur on an Add or Delete. The five territory alignment fields are Industry Classification Code, City, State, Zip, and Country. If one of these fields has changed and the filter is disabled, a flag is set in a cTerritoryAlign parameter in the event data structure. This flag is a signal that something has changed in those five fields.

RTCMHDR2

JD Edwards EnterpriseOne uses RTCMHDR2 to notify third-party systems of customer additions, changes, or deletions.

Event Name	<i>RTCMOUT2</i>
Event Description	<i>2CM Header</i>
Event Type	RTE
Event Category	<i>SINGLE</i>
Product Code	01
Reliable Delivery	1
Delivery Timeout	
Threshold	0
Data Structure	D0100096A
Event Relationship	Included in container event RTCMOUT2.

Event Fields

The RTCMHDR2 event contains these fields:

Data Item /Alias	Structure Member Name	Data Type	Size	Description
ACTN	cActionCode	Char	1	ActionType
AN8	mnAddressNumber	Numeri	8	Customer

Data Item /Alias	Structure Member Name	Data Type	Size	Description
		c		
CO	szCompany	String	5	Company
ALPH	szNameAlpha	String	40	CustomerName
MCU	szBusinessUnit	String	12	BusinessUnit
AT1	szSearchType	String	3	CustomerType
BADT	cShipToSoldToFlag	Char	1	BillingAddressType
SIC	szStandardIndustryCode	String	10	IndustryClassificationCode
RMK	szRemark	String	30	Remark
LNGP	szLanguageCode	String	2	Language
POPN	szCreatedBy	String	10	Personwhocreatesrecord
MLNM	szMailingName	String	40	MailingName
ADD1	szAddressLine1	String	40	AddressLine1
ADD2	szAddressLine2	String	40	AddressLine2
ADD3	szAddressLine3	String	40	AddressLine3
ADD4	szAddressLine4	String	40	AddressLine4
CTY1	szCity	String	25	City
COUN	szCountyAddress	String	25	County
ADDS	szState	String	3	State
ADDZ	szZipCodePostal	String	12	ZipPostalCode
CTR	szCountry	String	3	Country
TXA1	szTaxArea	String	10	TaxRate/Area
EXR1	szTaxExplanationCode	String	2	TaxExplCode1
TAX	szTaxId	String	20	Tax ID
CRCD	szCurrencyCode	String	4	CurrencyCode
PORQ	cCustomerPORequiredYN	Char	1	CustomerPORequired(Y/N)
PA8	mnParentNumber	Numeric	8	Parent
CM	szCreditMessage	String	2	CreditMessage
EV01	cTerritoryAlign	Char	1	TerritoryAlignmentFlagfor CRM
PID	szProgramID	String	10	ProgramID
ALKY	szAlternateAddressKey	String	20	AlternateAddressKey
TRAR	szPaymentTermsA/R	String	3	PaymentTerms-A/R

Data Item /Alias	Structure Member Name	Data Type	Size	Description
HOLD	szHoldOrdersCode	String	20	HoldAlternateCode
EFTB	jdDateBeginningEffective	Date	6	Date-BeginningEffectiveDate
DC	szDescripCompressed	String	40	DescriptionCompressed
TAXC	cPersonCorporationCode	Char	1	Person/CorporationCode
AT2	cAddressType2	Char	1	AR/APNettingIndicator
ATP	cAddressTypePayables	Char	1	AddressType-Payables
ATPR	cAddTypeCode4Purch	Char	1	AddressTypeCode-Purchaser
AB3	cMiscCode3	Char	1	AddressTypeMiscellaneous Code(future)
ATE	cAddressTypeEmployee	Char	1	AddressTypeEmployee
SBLI	cSubledgerInactiveCode	Char	1	SubledgerInactiveCode
AN81	mnAddressNumber1st	Numeri c	8	Customer
AN82	mnAddressNumber2nd	Numeri c	8	Customer
AN83	mnAddressNumber3rd	Numeri c	8	Customer
AN84	mnAddressNumber4th	Numeri c	8	Customer
AN85	mnAddressNumber5th	Numeri c	8	Factor-SpecialPayee
CUSTS	cCustomerStatus	Char	1	CustomerStatus
DAOJ	jdDateAccountOpened	Date	6	Date-AccountOpened
AT3	cAddressType3	Char	1	HCMRecordsExist
AT4	cAddressType4	Char	1	AddressType-4
AT5	cAddressType5	Char	1	AddressType-5
ATR	cAddressTypeReceivables	Char	1	AddressType-Receivables
AN86	mnAddressNumber6th	Numeri c	8	AddressNumber5th
TXCT	szCertificateTaxExempt	String	20	CertificateTaxExemption
TICKER	szTicker	String	10	Ticker
DUNS	szDUNSNumber	String	13	DUNSNumber
NOE	mnNumberOfEmployee	Numeri c	15	NumberOfEmployees

Data Item /Alias	Structure Member Name	Data Type	Size	Description
YEARSTAR	szYearStarted	String	15	YearStarted
ACL	mcAmountCreditLimit	Numeric	15	Amount-CreditLimit
HDAR	cArHoldInvoices	Char	1	HoldInvoices
STMT	cPrintStatementYN	Char	1	PrintStatementY/N
ATCS	cAutoCash	Char	1	AutoReceiptY/N
CKHC	cCreditCkHandlingCode	Char	1	CreditCheckHandlingCode
DLC	jdDateLastCreditReview	Date	6	Date-LastCreditReview
DB	szDunBradstreetRating	String	3	Dun&BradstreetRating
MAXO	mnMaximumOrderValue	Numeric	15	MaximumOrderValue
MINO	mnMinimumOrderValue	Numeric	15	MinimumOrderValue
FRTN	szFreightHandlingCode	String	3	FreightHandlingCode
APTS	cParticalShipmentsAllowY	Char	1	PartialLineShipmentsAllowed Y/N
SBAL	cSubstitutesAllowedYN	Char	1	SubstitutesAllowedY/N
BACK	cBackordersAllowedYN	Char	1	BackordersAllowedY/N
INVC	mnInvoiceCopies	Numeric	2	InvoiceCopies
ICON	clInvoiceConsolidation	Char	1	InvoiceConsolidation
BLFR	cBillFrequency	Char	1	BillingFrequency
VUMD	szUnitOfMeasureVolDisp	String	2	UnitofMeasure-Volume Display
WUMD	szUnitOfMeasureWhtDisp	String	2	UnitofMeasure-Weight Display
EDF1	cDeliveryNote	Char	1	DeliveryNote
SIO1	cSpecialInstruction01	Char	1	PartialOrderShipmentAllowed Y/N
CRMD	cCorrespondenceMethod	Char	1	SendMethod
RQ01	cRequiresPackgingCode	Char	1	RequiresPackagingCode
RQ02	cRequiresWeightCode	Char	1	RequiresWeightCode
RQ05	cRequiresTransportationMe	Char	1	RequiresTransportationMethod
RQ06	cRequiresRouting	Char	1	RequiresRouting
AN8R	mnRelatedAddressNo	Numeric	8	RelatedAddressNumber

Conceptual Approach

A customer record that is added, modified, or deleted in JD Edwards EnterpriseOne, creates a new record in a number of tables such as the Customer Master by Line of Business (F03012) and Address Book Master (F0101) tables. A realtime notification event is triggered in the Customer Master or Address Book Master Business Function after data is modified in any customer table.

Objects that can Initiate the Event

These objects can initiate the RTCMHDR2 event:

- N0100041 - Address Book MBF
- N0100042 - Customer Master MBF
- P0111 - Whos Who application
- P0115 - Phones application
- P01111 - Contact Information Email application
- B0100073 - Electronic Address -Phones business function B0100077 -Customer Master Realtime Event notification function
- B0100096 - Customer Master Real Time Wrapper
- B0100089 - Electronic Address MBF
- B0100090 - Phones MBF
- P90CA080 - Customer

RTCMPHOUT2

JD Edwards EnterpriseOne uses RTCMPHOUT2 to inform third-party systems of customer phone number changes.

Event Name	<i>RTCMPHOUT2</i>
Event Description	<i>CM Phone</i>
Event Type	<i>RTE</i>
Event Category	<i>SINGLE</i>
Product Code	<i>01</i>
Reliable Delivery	<i>1</i>
Delivery Timeout	
Threshold	<i>0</i>
Data Structure	<i>D0100096E</i>
Event Relationship	<i>Included in container event RTCMOUT2.</i>

Event Fields

The RTCMPHOUT2 event contains these fields:

Data Item /Alias	Structure Member Name	Data Type	Size	Description
AN8	mnAddressNumber	Numeric	8	AddressNumber
CO	szCompany	String	5	Company
ACTN	cPhoneActionCode	Char	1	ActionType
IDLN	mnLineNumberID	Numeric	5	LineNumberID
CNLN	mnContactPersonID	Numeric	5	ContactLineNumber
RCK7	mnSequenceNumber	Numeric	8	SequencenumberinF0115table ofrecord
PID	szProgramID	String	10	ProgramID
GENLNG	idEventID	Identifier	11	GeneridLongID-EnterpriseOne
EV01	cErrorID	Char	1	ErrorID
EV01	cErrorStatus	Char	1	ErrorStatus
VER	szVersionconsolidated	String	10	Version
EV01	cTerritoryAlign	Char	1	TerritoryAlignment
EV01	cErrorAPIEventReturn	Char	1	ErrorAPIEventReturn

Conceptual Approach

A phone number is changed in JD Edwards EnterpriseOne for a customer. This change is sent using RTEs. A given customer may have an infinite number of phone numbers.

Objects that Can Initiate the Event

These objects can initiate the RTCMPHOUT2 event:

- N0100041 - Address Book MBF
- N0100042 - Customer Master MBF
- P0111 - Whos who application
- P0115 - Phones application
- P01111 - Contact Information Email application
- B0100073 - Electronic Address -Phones business function
- B0100096 - Customer Master Realtime Event notification function
- B0100089 - Electronic Address MBF

- B0100090 - Phones MBF

RTCMEAOUT2

JD Edwards EnterpriseOne uses RTCMEAOUT2 to inform third-party systems of customer email address changes.

Event Name	<i>RTCMEAOUT2</i>
Event Description	<i>Customer Email</i>
Event Type	<i>RTE</i>
Event Category	<i>SINGLE</i>
Product Code	<i>01</i>
Reliable Delivery	<i>1</i>
Delivery Timeout	
Threshold	<i>0</i>
Data Structure	<i>D0100096C</i>
Event Relationship	<i>Included in container event RTCMOUT2.</i>

Event Fields

The RTCMEAOUT2 event contains these fields:

Data Item /Alias	Structure Member Name	Data Type	Size	Description
AN8	mnAddressNumber	Numeri c	8	Addressnumberofcustomer
CO	szCompany	String	5	Company
IDLN	mnLineNumberID	Numeri c	8	who'swhonumberofcustomer
RCK7	mnSequenceNumber70	Numeri c	8	Sequencenumberofrecordin F01151table
ACTN	cElectrAddressActionCode	Char	1	ActionType
PID	szProgramId	String	10	ProgramID
GENLNG	idEventID	Identifie r	11	GeneridLongID-EnterpriseOne
EV01	cErrorID	Char	1	ErrorID
VER	szVersionconsolidated	String	10	Version
EV01	cErrorStatus	Char	1	ErrorStatus
EV01	cTerritoryAlign	Char	1	TerritoryAlignment

Data Item /Alias	Structure Member Name	Data Type	Size	Description
EV01	cErrorAPIEventReturn	Char	1	ErrorAPIEventReturn

Conceptual Approach

An email address is added or changed in JD Edwards EnterpriseOne for a customer. This change is sent using RTEs. A given customer may have an infinite number of email addresses.

Objects that Can Initiate the Event

These objects can initiate the RTCMEAOUT2 event:

- N0100041 - Address Book MBF
- N0100042 - Customer Master MBF
- P0111 - Whos Who application
- P0115 - Phones application
- P01111 - Contact Information Email application
- B0100073 - Electronic Address -Phones business function
- B0100096 - Customer Master Realtime Event notification function
- B0100089 - Electronic Address MBF
- B0100090 - Phones MBF

RTCMMAOUT

JD Edwards EnterpriseOne uses RTCMAAOUT to inform third-party systems of alternate address data changes for customers.

Event Name	RTCMMAOUT
Event Description	Customer Alternate Address
Event Type	RTE
Event Category	SINGLE
Product Code	01
Reliable Delivery	1
Delivery Timeout	0
Threshold Data	
Structure	D0100096D
Event Relationship	Included in container event RTCMOUT2.

Event Fields

The RTCMAAOUT event contains these fields:

Data Item /Alias	Structure Member Name	Data Type	Size	Description
AN8	mnAddressNumber	Numeric	8	AddressNumber
IDLN	mnLineNumberID	Numeric	5	LineNumberID
CO	szCompany	String	5	Company
ATYPE	szTypeAddress	String	5	Type - Address
EFTB	jdDateBeginningEffective	Date	6	Date-BeginningEffective
ACTN	cAlternateAddressActionCode	Char	1	ActionType
PID	szProgramId	String	10	ProgramID
GENLNG	idEventID	Identifier	11	GeneridLongID-EnterpriseOne
EV01	cErrorID	Char	1	ErrorID
VER	szVersionconsolidation	String	10	Version
EV01	cErrorStatus	Char	1	ErrorStatus
EV01	TerritoryAlign	Char	1	TerritoryAlignment
EV01	cErrorAPIEventReturn	Char	1	ErrorAPIEventReturn

Conceptual Approach

An alternate address is added or changed in JD Edwards EnterpriseOne for a customer. This change is sent using RTEs. A given customer may have an infinite number of alternate addresses.

Objects that Can Initiate the Event

These objects can initiate the RTCMAAOUT event:

- N0100041 - Address Book MBF
- N0100042 - Customer Master MBF
- P0111 - Whos Who application
- P0115 - Phones application
- P01111 - Contact Information Email application
- B0100073 - Electronic Address -Phones business function
- B0100096 - Customer Master Realtime Event notification function
- B0100089 - Electronic Address MBF

- B0100090 - Phones MBF

RTCMCCOUT2

JD Edwards EnterpriseOne uses RTCMCCOUT2 to inform third-party systems of customer category code changes.

Event Name	RTCMCCOUT2
Event Description	Customer Category Codes
Event Type	RTE
Event Category	SINGLE
Product Code	01
Reliable Delivery	1
Delivery Timeout	0
Threshold Data	
Structure	D0100096I
Event Relationship	Included in container event RTCMOUT2.

Event Fields

The RTCMCCOUT2 event contains these fields:

Data Item /Alias	Structure Member Name	Data Type	Size	Description
AN8	mnAddressNumber	Numeric	8	AddressNumber
AC01	szReportCodeAddBook001	String	3	CategoryCode-AddressBook 01
AC02	szReportCodeAddBook002	String	3	CategoryCode-AddressBook 02
AC03	szReportCodeAddBook003	String	3	CategoryCode-AddressBook 03
AC04	szReportCodeAddBook004	String	3	CategoryCode-AddressBook 04
AC05	szReportCodeAddBook005	String	3	CategoryCode-AddressBook 05
AC06	szReportCodeAddBook006	String	3	CategoryCode-AddressBook 06
AC07	szReportCodeAddBook007	String	3	CategoryCode-AddressBook 07
AC08	szReportCodeAddBook008	String	3	CategoryCode-AddressBook 08
AC09	szReportCodeAddBook009	String	3	CategoryCode-AddressBook 09
AC10	szReportCodeAddBook010	String	3	CategoryCode-AddressBook 10
AC11	szReportCodeAddBook011	String	3	CategoryCode-AddressBook 11
AC12	szReportCodeAddBook012	String	3	CategoryCode-AddressBook 12

Data Item /Alias	Structure Member Name	Data Type	Size	Description
AC13	szReportCodeAddBook013	String	3	CategoryCode-AddressBook 13
AC14	szReportCodeAddBook014	String	3	CategoryCode-AddressBook 14
AC15	szReportCodeAddBook015	String	3	CategoryCode-AddressBook 15
AC16	szReportCodeAddBook016	String	3	CategoryCode-AddressBook 16
AC17	szReportCodeAddBook017	String	3	CategoryCode-AddressBook 17
AC18	szReportCodeAddBook018	String	3	CategoryCode-AddressBook 18
AC19	szReportCodeAddBook019	String	3	CategoryCode-AddressBook 19
AC20	szReportCodeAddBook020	String	3	CategoryCode-AddressBook 20
AC21	szCategoryCodeAddressBook2	String	3	CategoryCode-AddressBook 21
AC22	szCategoryCodeAddressBk22	String	3	CategoryCode-AddressBook 22
AC23	szCategoryCodeAddressBk23	String	3	CategoryCode-AddressBook 23
AC24	szCategoryCodeAddressBk24	String	3	CategoryCode-AddressBook 24
AC25	szCategoryCodeAddressBk25	String	3	CategoryCode-AddressBook 25
AC26	szCategoryCodeAddressBk26	String	3	CategoryCode-AddressBook 26
AC27	szCategoryCodeAddressBk27	String	3	CategoryCode-AddressBook 27
AC28	szCategoryCodeAddressBk28	String	3	CategoryCode-AddressBook 28
AC29	szCategoryCodeAddressBk29	String	3	CategoryCode-AddressBook 29
AC30	szCategoryCodeAddressBk30	String	3	CategoryCode-AddressBook 30

Conceptual Approach

A customer's category code data is added or changed in JD Edwards EnterpriseOne. This change is sent out using RTEs.

Objects that Can Initiate the Event

These objects can initiate the RTCMCCOUT2 event:

- N0100041 - Address Book MBF
- N0100042 - Customer Master MBF
- P0111 - Whos Who application
- P0115 - Phones application
- P01111 - Contact Information Email application
- B0100073 - Electronic Address -Phones business function

- B0100096 - Customer Master Realtime Event notification function
- B0100089 - Electronic Address MBF
- B0100090 - Phones MBF

RTABCCOUT

JD Edwards EnterpriseOne uses RTABCCOUT to inform third-party systems of address book category code changes.

Event Name	RTABCCOUT
Event Description	Address Book
Category	Codes
Event Type	RTE Event
Category	SINGLE
Product Code	01
Reliable Delivery	1
Delivery Timeout	0
Threshold Data	
Structure	D0100096H
Event Relationship	included in container event RTCMOUT2.

Event Fields

The RTABCCOUT event contains these fields:

Data Item /Alias	Structure Member Name	Data Type	Size	Description
AC01	szReportCodeAddBook001	String	3	CategoryCode-AddressBook 01
AC02	szReportCodeAddBook002	String	3	CategoryCode-AddressBook 02
AC03	szReportCodeAddBook003	String	3	CategoryCode-AddressBook 03
AC04	szReportCodeAddBook004	String	3	CategoryCode-AddressBook 04
AC05	szReportCodeAddBook005	String	3	CategoryCode-AddressBook 05
AC06	szReportCodeAddBook006	String	3	CategoryCode-AddressBook 06
AC07	szReportCodeAddBook007	String	3	CategoryCode-AddressBook 07
AC08	szReportCodeAddBook008	String	3	CategoryCode-AddressBook 08
AC09	szReportCodeAddBook009	String	3	CategoryCode-AddressBook 09
AC10	szReportCodeAddBook010	String	3	CategoryCode-AddressBook 10
AC11	szReportCodeAddBook011	String	3	CategoryCode-AddressBook 11

Data Item /Alias	Structure Member Name	Data Type	Size	Description
AC12	szReportCodeAddBook012	String	3	CategoryCode-AddressBook 12
AC13	szReportCodeAddBook013	String	3	CategoryCode-AddressBook 13
AC14	szReportCodeAddBook014	String	3	CategoryCode-AddressBook 14
AC15	szReportCodeAddBook015	String	3	CategoryCode-AddressBook 15
AC16	szReportCodeAddBook016	String	3	CategoryCode-AddressBook 16
AC17	szReportCodeAddBook017	String	3	CategoryCode-AddressBook 17
AC18	szReportCodeAddBook018	String	3	CategoryCode-AddressBook 18
AC19	szReportCodeAddBook019	String	3	CategoryCode-AddressBook 19
AC20	szReportCodeAddBook020	String	3	CategoryCode-AddressBook 20
AC22	szCategoryCodeAddBk022	String	3	CategoryCode-AddressBook 21
AC23	szCategoryCodeAddBk023	String	3	CategoryCode-AddressBook 22
AC24	szCategoryCodeAddBk024	String	3	CategoryCode-AddressBook 23
AC25	szCategoryCodeAddBk025	String	3	CategoryCode-AddressBook 24
AC26	szCategoryCodeAddBk026	String	3	CategoryCode-AddressBook 25
AC27	szCategoryCodeAddBk027	String	3	CategoryCode-AddressBook 26
AC28	szCategoryCodeAddBk028	String	3	CategoryCode-AddressBook 27
AC29	szCategoryCodeAddBk029	String	3	CategoryCode-AddressBook 28
AC30	szCategoryCodeAddBk030	String	3	CategoryCode-AddressBook 29
AC21	szCategoryCodeAddBk021	String	3	CategoryCode-AddressBook 30

Conceptual Approach

A customer's address-book category-code data is added or changed in JD Edwards EnterpriseOne. This change is sent using RTEs.

Objects that Can Initiate the Event

These objects can initiate the RTABCCOUT event:

- N0100041 - Address Book MBF
- N0100042 - Customer Master MBF
- P0111 - Whos Who application
- P0115 - Phones application
- P01111 - Contact Information Email application
- B0100073 - Electronic Address -Phones business function

- B0100096 - Customer Master Realtime Event notification function
- B0100089 - Electronic Address MBF
- B0100090 - Phones MBF

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