

**Oracle® Serialization and Tracking Integration
Pack for Oracle® Pedigree and Serialization
Manager and Oracle® E-Business Suite 3.1 -
Release Notes**

Release 3.1

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Oracle Serialization and Tracking Integration Pack for Oracle Pedigree and Serialization Manager and Oracle E-Business Suite 3.1 – Release Notes

Part No. E20588-03

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Value Proposition for Oracle Serialization and Tracking Integration Pack for Oracle Pedigree and Serialization Manager and Oracle E-Business Suite 3.1

The Oracle Serialization and Tracking Integration Pack combines the serialization and pedigree management capabilities of Oracle Pedigree and Serialization Manager (OPSM) with Oracle E-Business Suite's (EBS) robust inventory, manufacturing and order management applications. The integration pack provides integration points specifically between OPSM Release 1.1 and EBS Releases 11.5.10 and 12.1.2.

Using the AIA Foundation Pack methodology and architecture, this pre-built integration provides configurable business objects that will enable faster integration into an existing EBS system. Additionally, the business objects are reusable by customers and partners that wish to build their own integrations between OPSM and other systems.

Key benefits include:

- A comprehensive serialization and tracking solution.
 - Real-time synchronization of shipping and return transactions for OPSM Integrated items.
 - Validation of serials including identification of potentially fraudulent data.
 - Serial request generation based on manufacturing yield.
- Error reduction by eliminating manual duplication of transactional data.
- Seamless integration between OPSM and EBS.
- Decreased implementation time.
 - Business objects are prebuilt and can be used without additional configuration.
 - Required transactional data is captured.

Oracle Application Integration Architecture (AIA) replaces the traditional enterprise application integration with flexible, pre-built, standards-based business process integration solutions. As an Application Integration Architecture offering, the Serialization and Tracking Process Integration Pack includes all the necessary business process models you need out-of-the-box. Plus, the AIA adaptable framework enables you to extend the integration to accommodate your specific business needs.

Product Enhancements for Oracle Serialization and Tracking Integration Pack for Oracle Pedigree and Serialization Manager and Oracle E-Business Suite 3.1

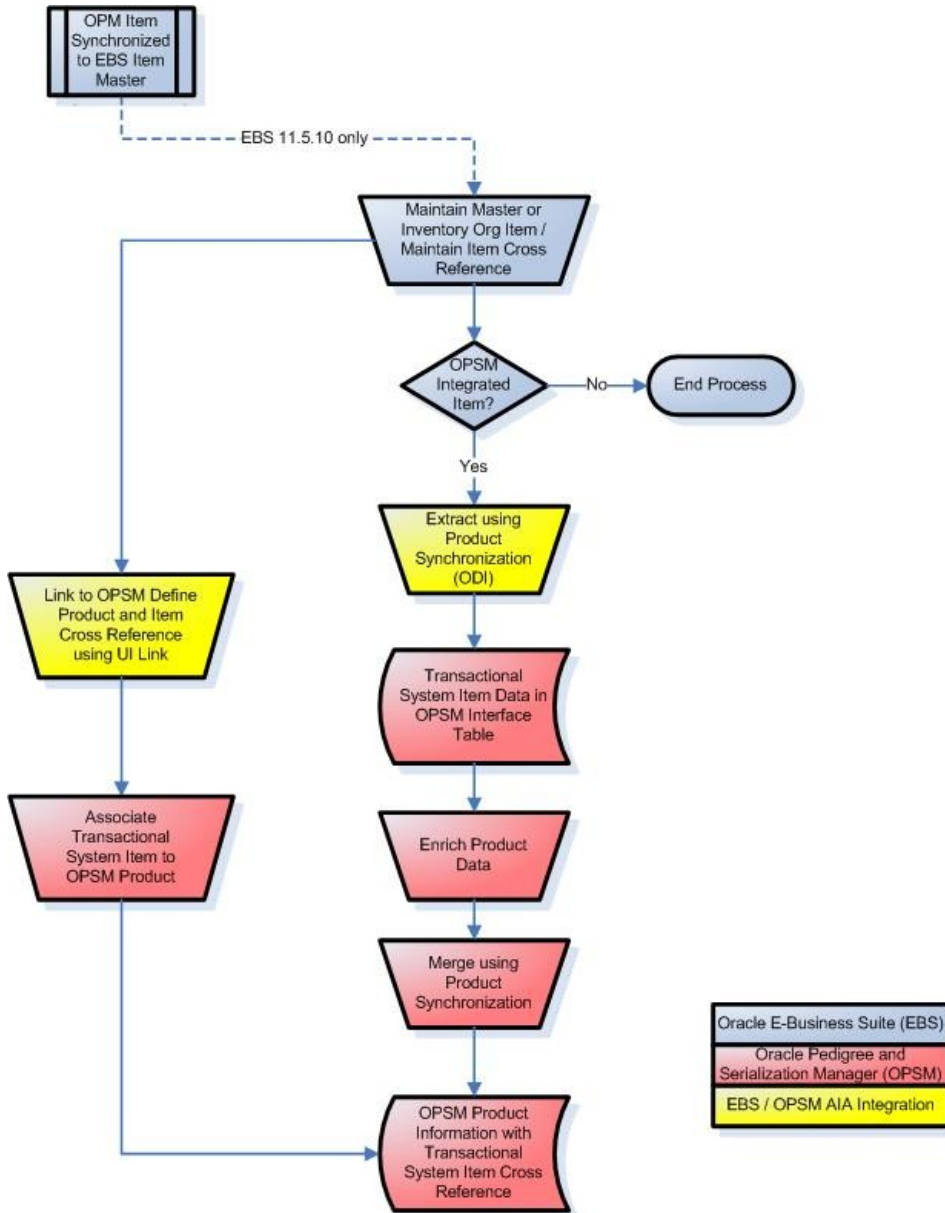
This section discusses the new enhancements for the Oracle Serialization and Tracking Integration Pack for Oracle Pedigree and Serialization Manager and Oracle E-Business Suite 3.1. These enhancements fall into five areas:

- Synchronized item and product information.
- Serial reservation for discrete manufacturing jobs and process manufacturing batches.
- Synchronized lot information.
- Serial commission.
- Real-time synchronized shipping and return transactions.

Synchronized Item and Product Information

This enhancement focuses on synchronizing item and product information. Keeping item data consistent between the transactional systems and Oracle Pedigree and Serialization Manager (OPSM) is critical for serialization as well as keeping transactional information up-to-date. Items created in Oracle E-Business Suite (EBS) can be synchronized to OPSM quickly and easily using either the Product Synchronization capability or the Define Product and Item Cross Reference page (Product Definition).

This diagram illustrates the Product Synchronization and Product Definition integration flows:



Product Synchronization and Product Definition integration flows

The Product Synchronization feature enables a bulk load of items into OPSPM from the transactional systems, enabling the transfer of large volumes of data at one time. This feature can be refined with user-specified criteria to identify which systems are synchronized and if a full or incremental load of the data should be performed.

The Synchronized Item and Product Information integration includes:

- Product Definition integration.
- Product Synchronization integration.

Product Definition Integration

The OPSM application is the central repository for product definitions. OPSM stores the attributes used to identify the product along with the required regulatory product attributes required to generate a pedigree. OPSM also stores product packaging level information and attributes that control serialization of the product packaging unit. The serialization process control attributes determine the serial type, serial generation overage amounts, and serial range control. In addition, process control attributes for the product determine if serials are tracked for transactions with no change of ownership, the creation of a pedigree, and whether the serials are generated by OPSM or externally for the product. Process controls for the product can be overridden by location.

The Product Definition integration enables you to create an OPSM Integrated item in Oracle E-Business Suite (Oracle Inventory) using the Master Item or Organization Item windows. From the Master Item or Organization Item windows you can call the OPSM Define Product and Item Cross Reference page by selecting the Define Product in OPSM option from the Tools menu. Using the Define Product and Item Cross Reference page in OPSM, you can define all of the different attributes for the item in OPSM.

The Product Definition integration entails an EBS window to an OPSM page transfer.

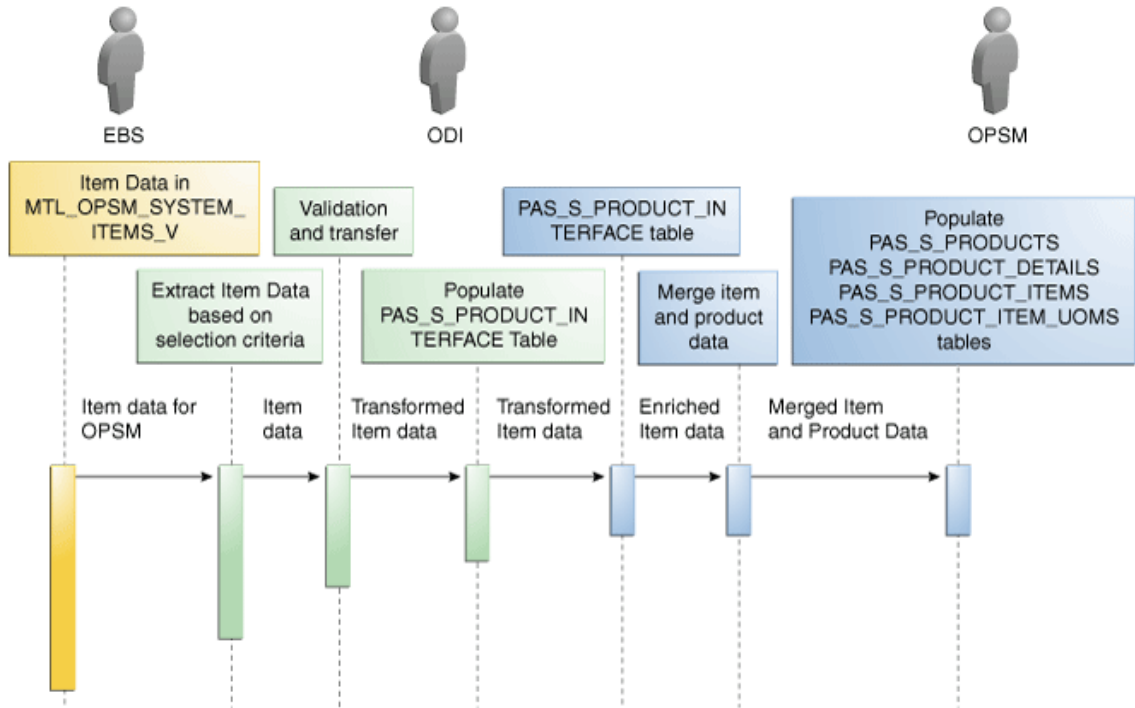
Product Synchronization Integration

The Product Synchronization integration transfers OPSM Integrated items created in EBS (Oracle Inventory) to OPSM. To synchronize the item data from EBS to OPSM you initiate the Product Synchronization process in OPSM using the Product Synchronization page. This process uses Oracle Data Integrator (ODI) to extract the item information for OPSM Integrated and lot controlled items and transfers the records to the Product Interface table. This table is used to further enrich the data with the OPSM specific product information, which is then loaded into the OPSM system.

Product Synchronization can occur for a full load of items or an incremental load (items newly flagged as *OPSM Integrated*) since the last data extract.

The mode of transport is view to a table. For the ODI interface EBS MTL_OPSPM_SYSTEM_ITEMS_V view is the source view and OPSM PAS_S_PRODUCT_INTERFACE table is the target table.

This diagram illustrates the Product Synchronization integration flow:

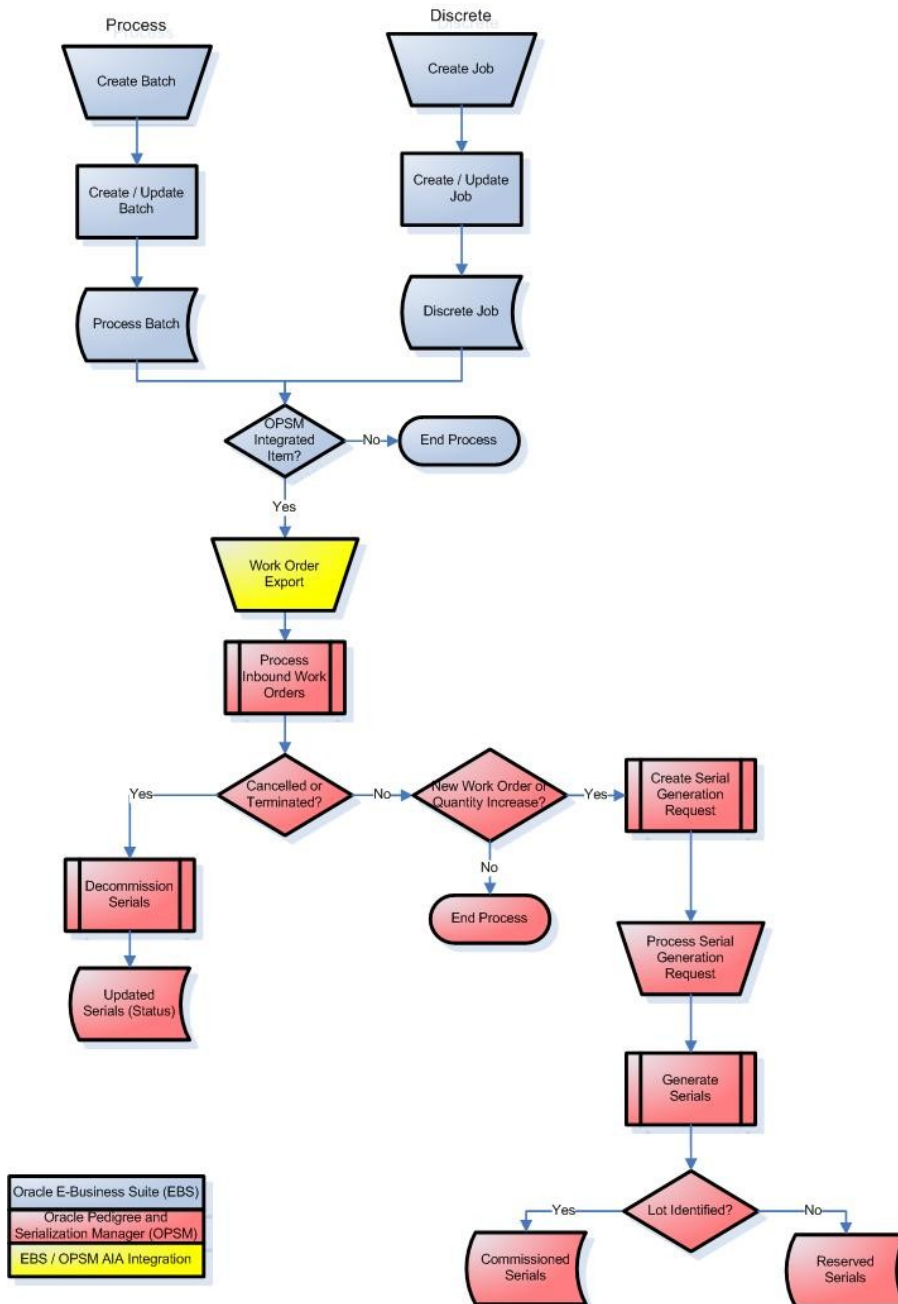


Product Synchronization integration flow

Serial Reservation for Discrete Manufacturing Jobs and Process Manufacturing Batches

The enhancement focuses on the creation and reservation of serial numbers for discrete manufacturing jobs and process manufacturing batches. Work Order Serialization is a business process that creates serial generation requests within Oracle Pedigree and Serialization Manager (OPSM) based on manufacturing yield from Oracle E-Business Suite (EBS) transactions. Designed to support both discrete and process manufacturing, the integration points provided capture information from both the creation of discrete jobs and process batches.

This diagram illustrates the Work Order Serialization integration flow:



Work Order Serialization integration flow

Updates to these orders such as, an increase in yield and cancellation or termination are also captured by OPSM, keeping serial information current with what is happening during the manufacturing process.

The Serial Reservation for Discrete Manufacturing Jobs and Process Manufacturing Batches integration includes:

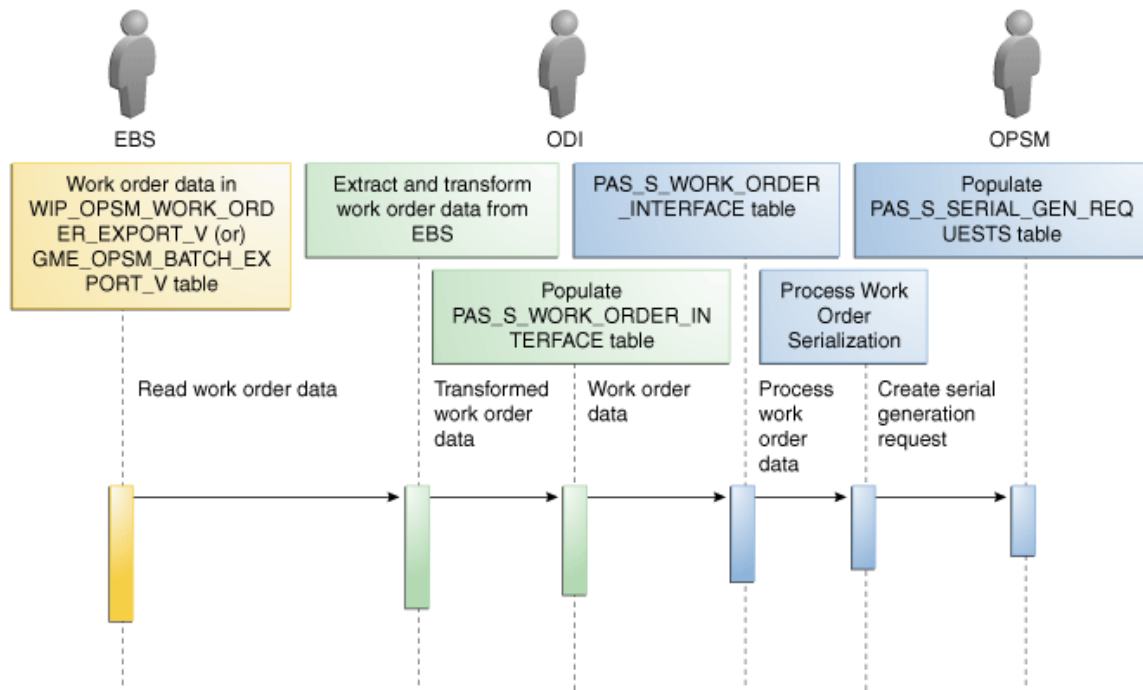
- Work Order Serialization integration (Discrete Manufacturing)
- Work Order Serialization integration (Process Manufacturing)

Work Order Serialization Integration (Discrete Manufacturing)

After a work order (job) is created or modified in Oracle E- Business Suite (Oracle Discrete Manufacturing) it is ready to be synchronized with Oracle Pedigree and Serialization Manager (OPSM) to generate, commission, or decommission serials for that particular work order. Using the Work Order Serialization page in OPSM you initiate the Work Order Serialization process. This process uses Oracle Data Integrator (ODI) to extract the discrete work order information for OPSM Integrated and lot controlled items and transfers the records to the Work Order Interface table. This information is sent to OPSM through the integration layer for serial generation in OPSM. Work Order Serialization can occur for a full load of work orders (jobs) or an incremental load (net new and changed work orders (jobs)).

The ODI mode of transport is view to a table. For the ODI interface EBS WIP_OPSM_WORK_ORDER_EXPORT_V view is the source view and OPSM PAS_S_WORK_ORDER_INTERFACE table is the target table.

This diagram illustrates the Work Order Serialization integration flow:



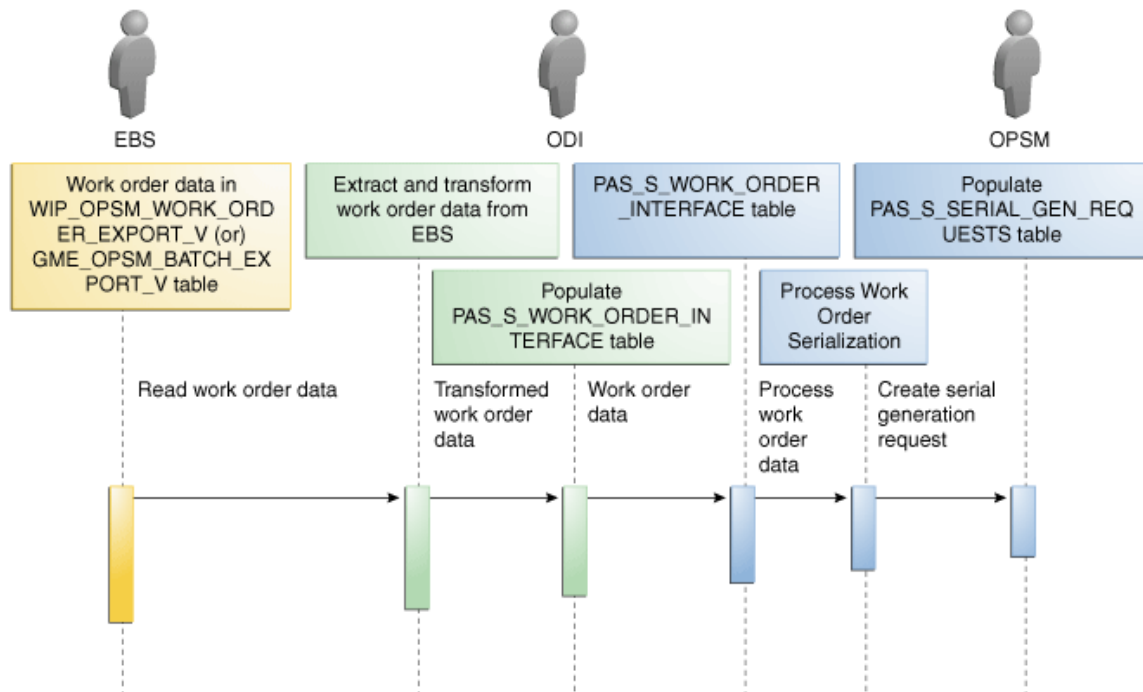
Work Order Serialization integration flow

Work Order Serialization Integration (Process Manufacturing)

After a work order (batch) is created or modified in Oracle E- Business Suite (Oracle Process Manufacturing) it is ready to be synchronized with Oracle Pedigree and Serialization Manager (OPSM) to generate, commission, or decommission serials for that particular work order. Using the Work Order Serialization page in OPSM you initiate the Work Order Serialization process. This process uses Oracle Data Integrator (ODI) to extract the discrete work order information for OPSM Integrated and lot controlled items and transfers the records to the Work Order Interface table. This information is sent to OPSM through the integration layer for serial generation in OPSM. Work Order Serialization can occur for a full load of work orders (batches) or an incremental load (net new and changed work orders (batches)).

The ODI mode of transport is view to a table. For the ODI interface EBS GME_OPSM_BATCH_EXPORT_V view is the source view and OPSM PAS_S_WORK_ORDER_INTERFACE table is the target table.

This diagram illustrates the Work Order Serialization integration flow:

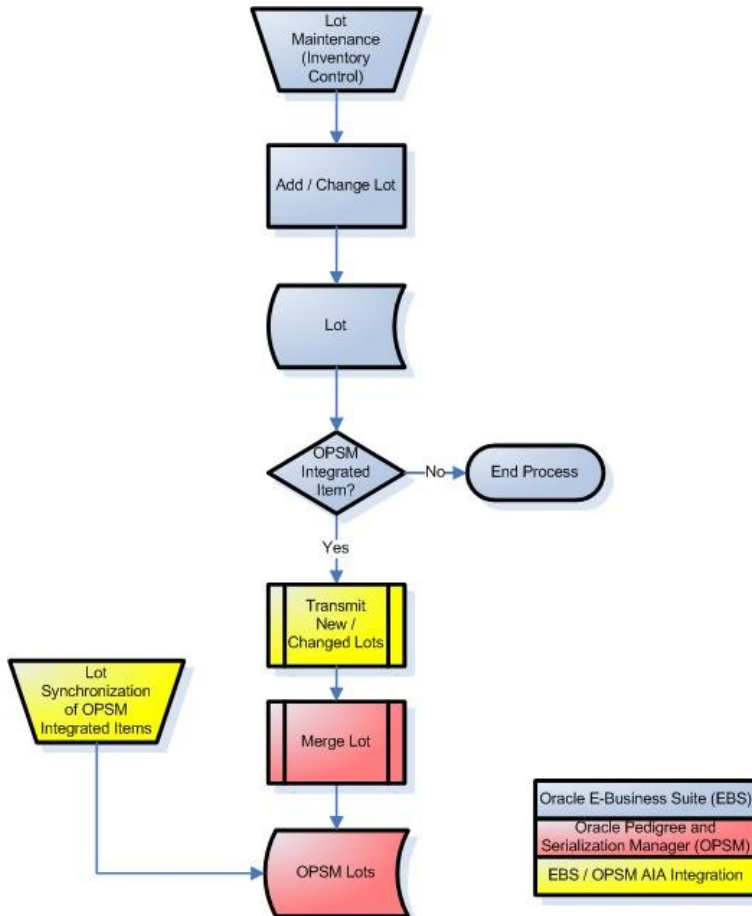


Work Order Serialization integration flow

Synchronized Lot Information

This enhancement focuses on synchronizing lot information. As with item information, synchronization of lot data, including lot expiration dates, is essential for accurate serial data management and tracking. The Serialization and Tracking Integration Pack provides real-time lot synchronization capabilities to ensure that any updates to the lot in the transactional system can be quickly and easily mirrored in Oracle Pedigree and Serialization Manager (OPSM).

This diagram illustrates the Lot Synchronization integration flow:



Lot Synchronization integration flow

The integration also provides a bulk lot synchronization feature which can be used during initial implementation of OPSM to synchronize pre-existing lot data. It can also be used as a data recovery feature in the event that there are any server communication issues between systems.

The Synchronized Lot Information integration includes:

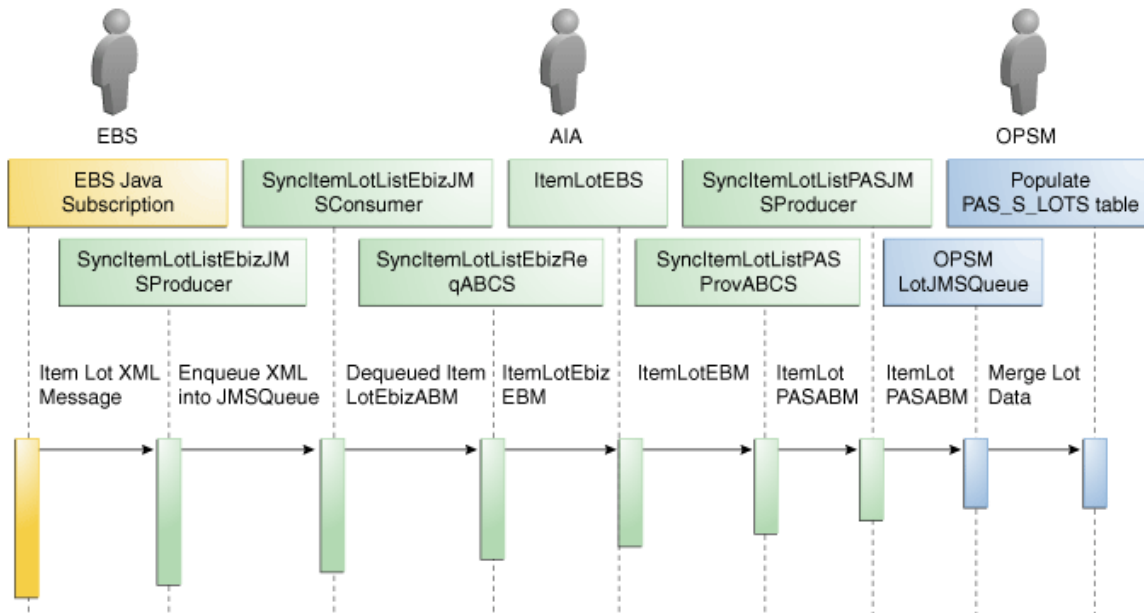
- Real-time Lot Synchronization integration (Discrete Manufacturing)
- Bulk load Lot Synchronization integration (Discrete Manufacturing)
- Real-time Lot Synchronization integration (Process Manufacturing) - Oracle E-Business Suite Release 11.5.10
- Bulk load Lot Synchronization integration (Process Manufacturing) - Oracle E-Business Suite

Real-Time Lot Synchronization Integration (Discrete Manufacturing)

When a new lot is created or an existing lot is updated in Oracle E-Business Suite (Oracle Inventory), the lot information can be synchronized to Oracle Pedigree and Serialization Manager (OPSM) using an AIA integration process flow.

When a new lot is inserted or an existing lot is updated in the Oracle Inventory MTL_LOT_NUMBERS table, an Oracle Event Alert is triggered. The Oracle Event Alert calls a PL/SQL procedure that raises a Business Event. The Business Event executes the associated Java Subscription Rule Function. The Java program generates the XML payload based on lot information and sends the XML payload to the JMS producer in the AIA layer for synchronization. Through the OPSM MergeLot Web Service the data is inserted into the PAS_S_LOTS table.

This diagram illustrates the real-time Lot Synchronization integration flow:



Real-Time Lot Synchronization integration flow

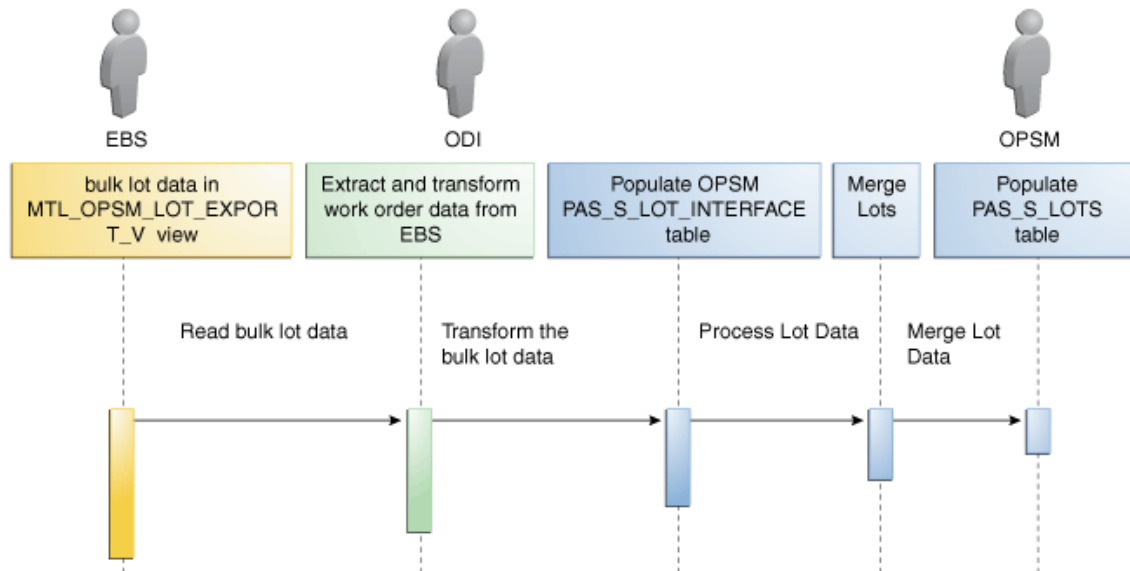
Bulk Load Lot Synchronization Integration (Discrete Manufacturing)

When a new lot is created or an existing lot is updated in Oracle E-Business Suite (Oracle Inventory), the lot information can be synchronized to Oracle Pedigree and Serialization Manager (OPSM) in a bulk load.

To bulk synchronize the lot information from Oracle E-Business Suite to OPSM you initiate the Lot Synchronization process in OPSM using the Lot Synchronization page. This process uses the Oracle Data Integrator (ODI) to extract the lot information and transfers the records to the Lot Interface table.

The mode of transport is view to a table. For the ODI interface Oracle Inventory MTL_OPSPM_LOT_EXPORT_V view is the source view and OPSM PAS_S_LOT_INTERFACE table is the target table.

This diagram illustrates the bulk load Lot Synchronization integration flow:



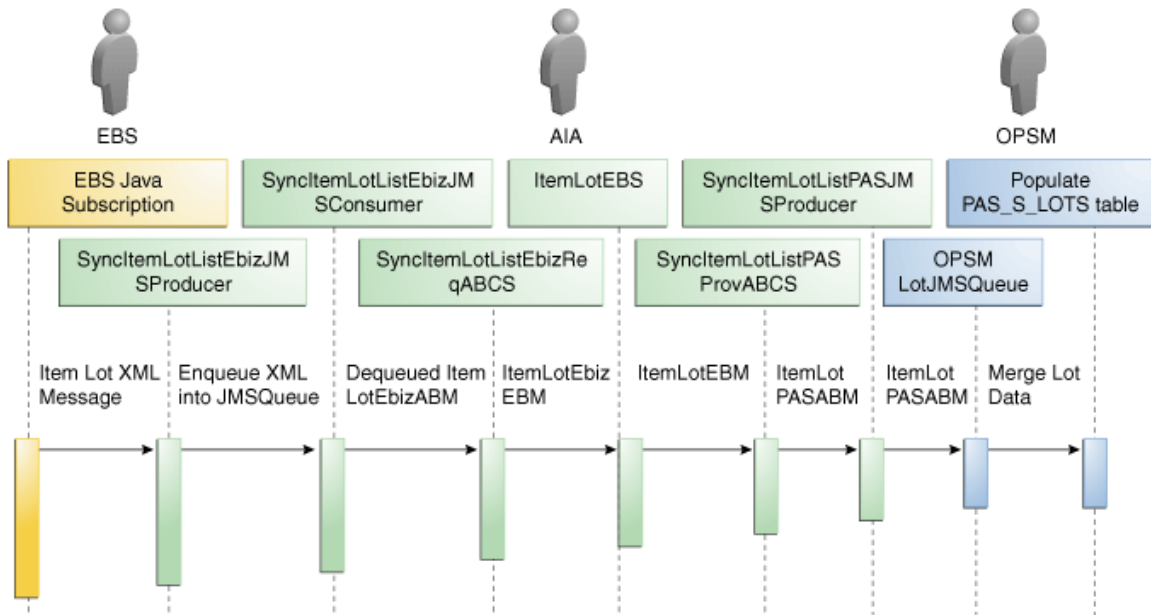
Bulk load Lot Synchronization integration flow

Real-Time Lot Synchronization Integration (Process Manufacturing) - Oracle E-Business Suite Release 11.5.10

When a new lot is created or an existing lot is updated in Oracle E-Business Suite (Oracle Process Manufacturing), the lot information can be synchronized to Oracle Pedigree and Serialization Manager (OPSM) using an AIA integration process flow.

When a new lot is created or an existing lot is updated in the IC_LOTS_MST table a business event (oracle.apps.gmi.lot.create or oracle.apps.gmi.lot.update) is raised. Java subscription of the business event reads the input parameters and passes to the PL/SQL procedure to get the lot information. An XML payload is generated based on the lot information. The XML payload is sent to the JMS producer in the AIA layer for synchronization. Through the OPSM MergeLot Web Service the data is inserted in to the PAS_S_LOTS table.

This diagram illustrates the real-time Lot Synchronization integration flow:



Real-Time Lot Synchronization integration flow

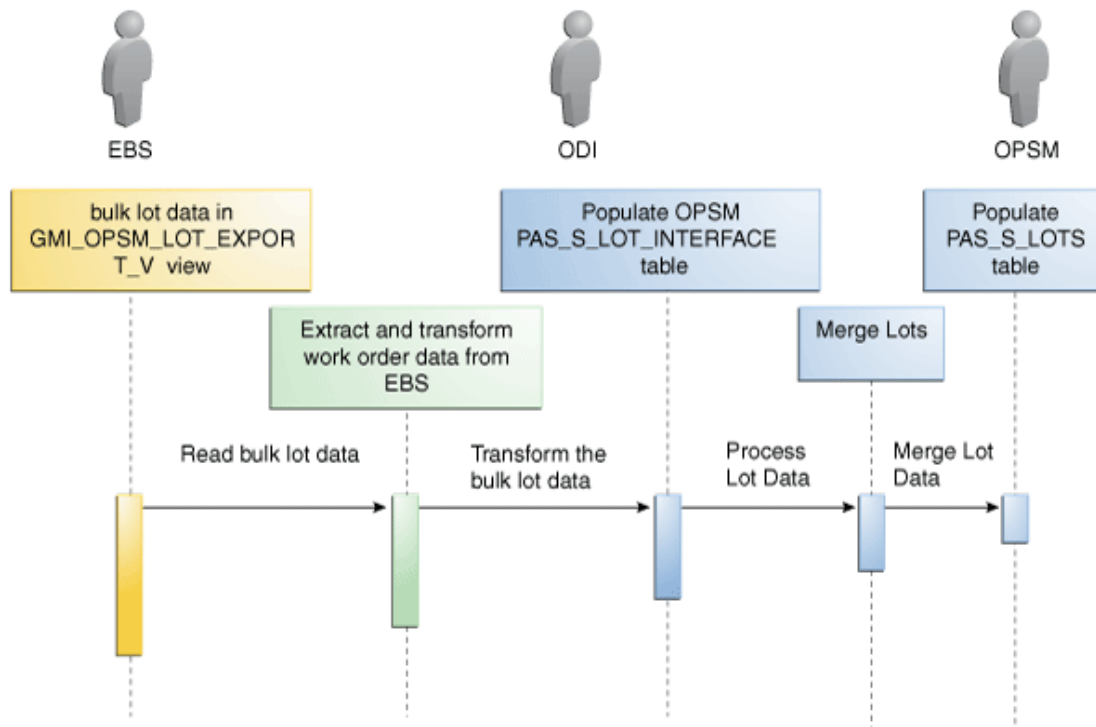
Bulk Load Lot Synchronization Integration (Process Manufacturing) - Oracle E-Business Suite Release 11.5.10

When a new lot is created or an existing lot is updated in Oracle E-Business Suite (Oracle Process Manufacturing), the lot information can be synchronized to Oracle Pedigree and Serialization Manager (OPSM) in a bulk load.

To bulk synchronize the lot information from Oracle E-Business Suite to OPSM you initiate the Lot Synchronization process in OPSM using the Lot Synchronization page. This process uses the Oracle Data Integrator (ODI) to extract the lot information and transfers the records to the Lot Interface table.

The mode of transport is view to a table. For the ODI interface Oracle Process Manufacturing GMI_OPSPM_LOT_EXPORT_V view is the source view and OPSM PAS_S_LOT_INTERFACE table is the target table.

This diagram illustrates the bulk load Lot Synchronization integration flow:



Bulk load Lot Synchronization integration flow

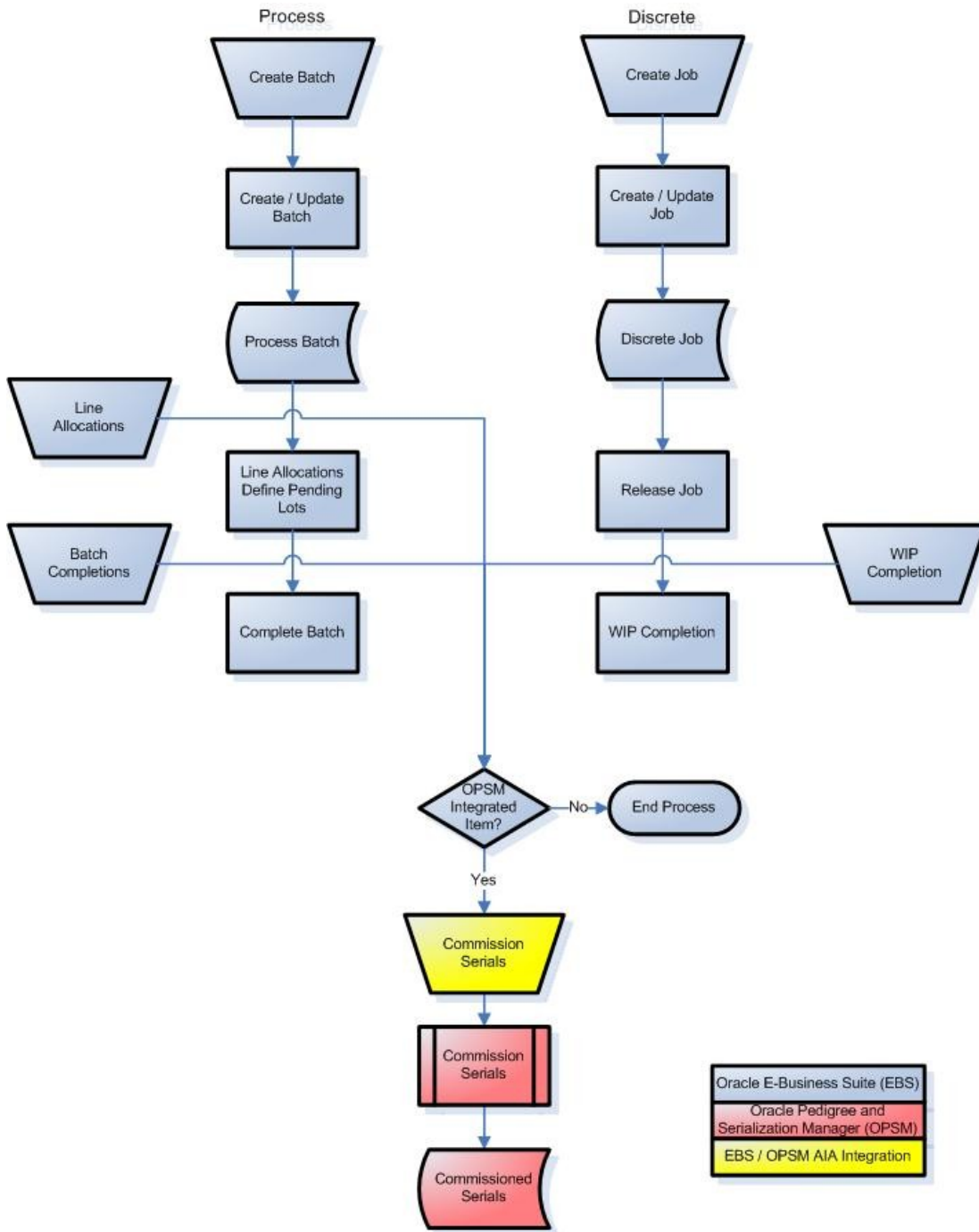
Serial Commission

This enhancement focuses on serial commission. In the manufacturing world, commissioning serials typically occurs when a label printed with the serial number has been applied to the product and it is read at the end of the packaging line. Any serials that are not commissioned remain in a reserved status and are just virtual numbers that are not associated with physical product packages.

Statuses in Oracle Pedigree and Serialization Manager (OPSM) are very similar. *Commissioned* serials in OPSM have been associated to a specific product and lot. *Reserved* serials in OPSM have not been associated to a product and lot; so in essence, these serial numbers are still virtual numbers waiting to be used. Finally, there is a status of *Decommissioned*. Serials can be decommissioned for several reasons. For example, if a process batch or discrete job is cancelled, any associated serials will be decommissioned. If a process batch is terminated, any serials for that batch that are still at a reserved status will also be decommissioned.

The new window link from Oracle E-Business Suite in discrete and process manufacturing provides a method to commission serials to a particular product and lot.

This diagram illustrates the Commission Serials integration flow:



Commission Serials integration flow

Enabling the user to commission the serials directly from the work order helps reduce data entry errors since work order information such as, document number and product and item are automatically transferred to the OPSM page. You can commission serials from the following integration points:

Oracle Process Manufacturing (Release 12.1.2)

- Pending Lots

- Batch Completions
- Material Transactions

Oracle Process Manufacturing (Release 11.5.10)

- Line Allocations
- Batch Completions

Discrete Manufacturing

- Job Completions
- Move Transactions
- Material Transactions

The Serial Commission integration includes:

- Commission Serials integration (Discrete Manufacturing)
- Commission Serials integration (Process Manufacturing) - Oracle E-Business Suite Release 11.5.10
- Commission Serials integration (Process Manufacturing) - Oracle E-Business Suite Release 12.1.2

Commission Serials Integration (Discrete Manufacturing)

In Oracle E-Business Suite (Oracle Discrete Manufacturing) you can call the OPSM Commission Serials page from the Completion Transactions, Move Transaction, and Material Transactions windows. When using these windows during the Job Completions, Move Transaction, and Material Transactions process flows you can invoke the OPSM Commission Serials page by selecting the Commission Serials in OPSM option from the Tools menu. After you select this option, the OPSM Commission Serials page will appear and you can commission serials.

This process flow entails an Oracle E-Business Suite window to an OPSM page transfer.

Commission Serials Integration (Process Manufacturing) - Oracle E-Business Suite Release 11.5.10

In Oracle E-Business Suite (Oracle Process Manufacturing) you can call the OPSM Commission Serials page from the Batch and Complete Batch - Item Requiring Allocations windows. When using these windows during Line Allocations and Batch Completions process flows you can invoke the OPSM Commission Serials page by selecting the Commission Serials in OPSM option from the Actions menu. After you select this option, the OPSM Commission Serials page will appear and you can commission serials.

This process flow entails an Oracle E-Business Suite window to an OPSM page transfer.

Commission Serials Integration (Process Manufacturing) - Oracle E-Business Suite Release 12.1.2

In Oracle E-Business Suite (Oracle Process Manufacturing) you can call the OPSM Commission Serials page from the Complete Batch - Item Requiring Allocations, Material Transaction, and Pending Lots windows. When using these windows during Batch Completions, Material Transaction, and Pending Lots process flows you can invoke the OPSM Commission Serials page by selecting the Commission Serials in OPSM option from the Actions menu. After you select this option, the OPSM Commission Serials page will appear and you can commission serials.

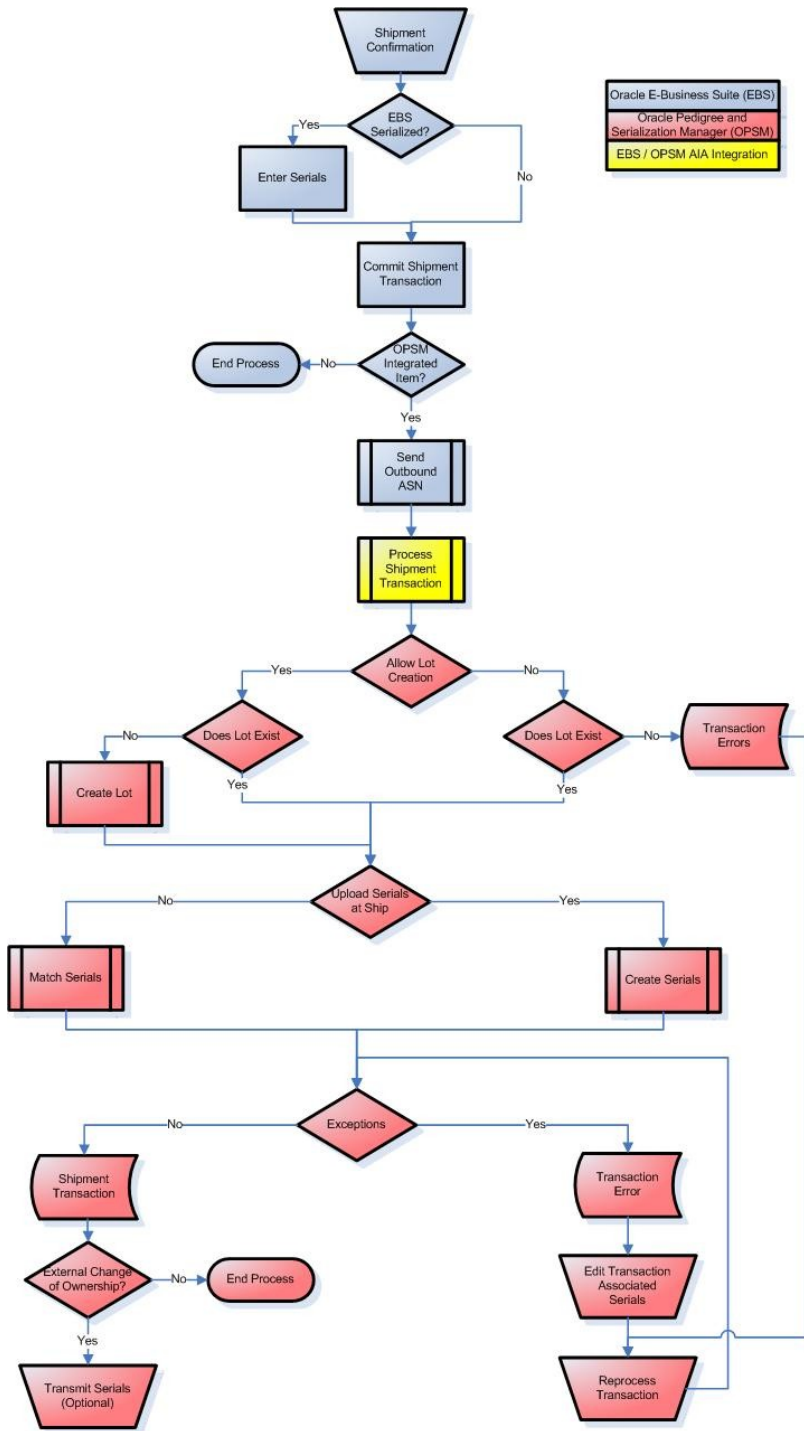
This process flow entails an Oracle E-Business Suite window to an OPSM page transfer.

Real-Time Synchronized Shipping and Return Transactions

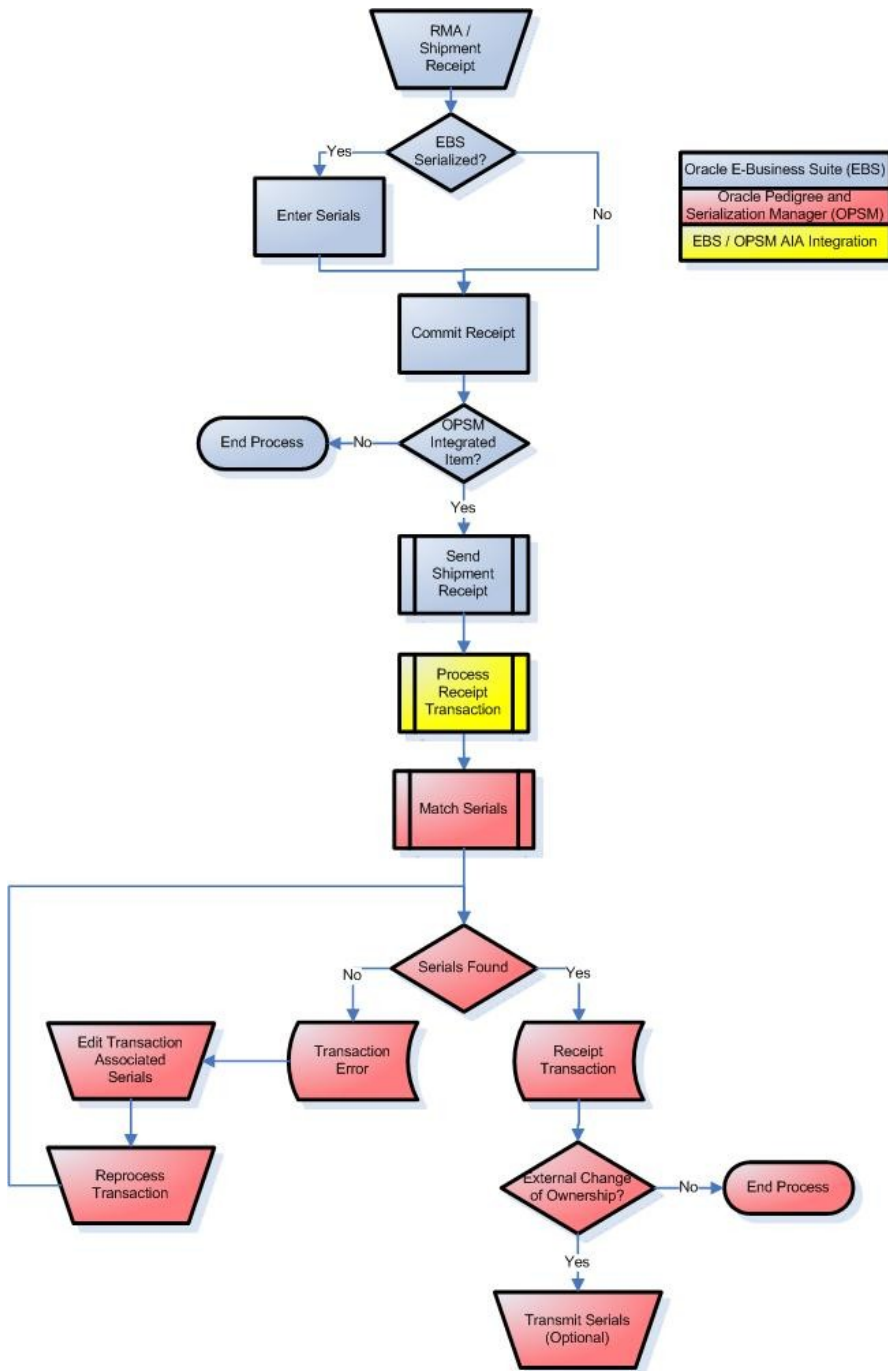
This enhancement focuses on real-time synchronized shipping and return transactions. The serialized item tracking integration ensures real-time capture of shipment and return transaction data as they occur in Oracle E-Business Suite (EBS). Information such as, order number, order type, trading partners (shipped by, shipped to, sold by, and sold to), and item data is sent to Oracle Pedigree and Serialization Manager (OPSM) either through an advance shipment notice or through a shipment receipt. If items are serialized in EBS, that data can also be transferred with this pertinent order information into the OPSM system for further tracking.

In addition to tracking, this integration also provides data validation points that can be essential in identifying potential problems within your distribution system. OPSM checks the serial data that is sent in through the advance shipment notice to ensure that those serials are not already in a shipped state. It also verifies that any returned serialized items were indeed shipped from your business. Both of these validations can aid in the identification of potentially fraudulent data.

These diagrams illustrate the Advance Shipment Notice (Shipment Transaction) integration flow and the Shipment Receipt (Return) Transaction integration flow:



Advance Shipment Notice (Shipment Transaction) integration flow



Oracle E-Business Suite (EBS)
Oracle Pedigree and Serialization Manager (OPSM)
EBS / OPSM AIA Integration

Shipment Receipt (Return) Transaction integration flow

The Real-Time Synchronized Shipping and Return integration includes:

- Advanced Shipment Notice (Shipment transaction) integration
- Shipment receipt (return) transaction integration

Advance Shipment Notice (Shipment Transaction) Integration

When an Oracle Pedigree and Serialization Manager (OPSM) integrated item is shipped in Oracle E-Business Suite (EBS), the transaction information is sent to the OPSM system in the form of an Advance Shipment Notice (ASN). This integration is achieved through the Serialized Item Tracking Process Integration (business events and AIA integration).

When a delivery is ship confirmed in EBS, the outbound Advance Shipment Notice (ASN) is published from EBS to OPSM. The ASN contains the transaction details including the transaction date, transaction quantity, shipped item, lot, trading partners (sold to, shipped by, shipped to, and sold by), and supporting document information. It may also include the shipped item serials, component serials (genealogy), and the container packaging hierarchy. Based on the shipped to customer, the shipment transaction may be flagged to indicate whether a change of ownership has occurred or not.

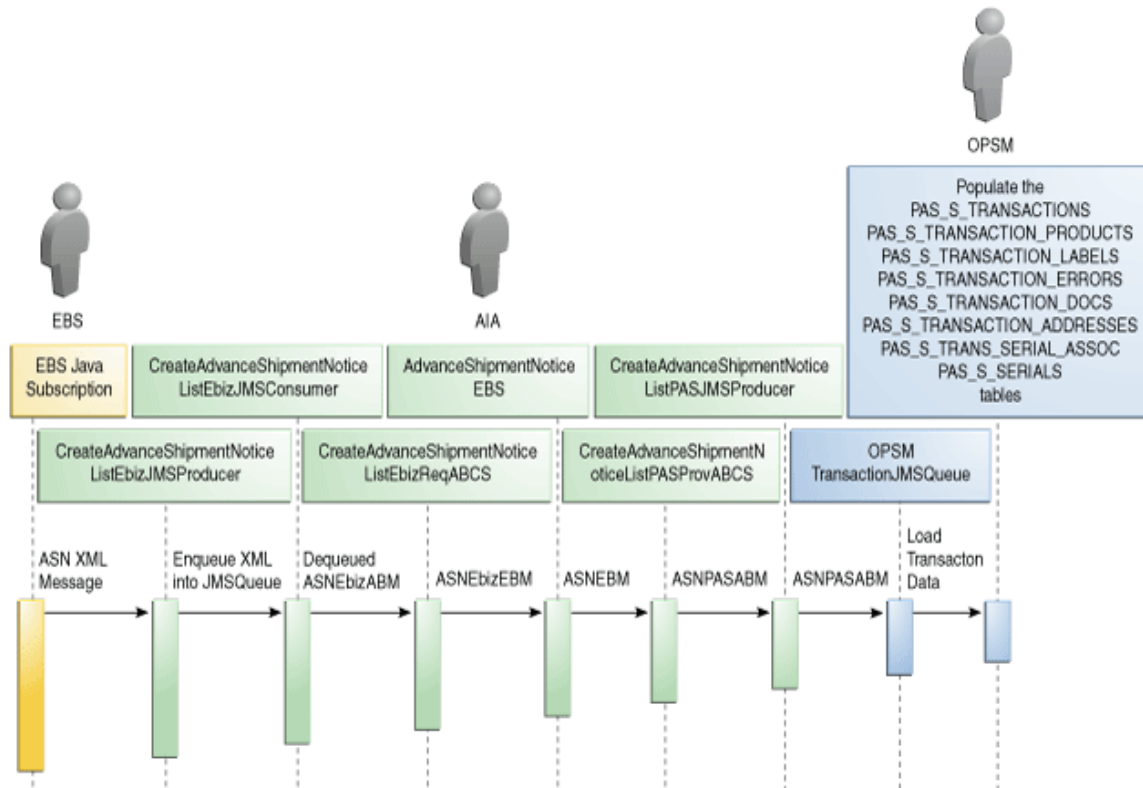
OPSM processes the ASN recording the details of the shipment along with the serials, packaging hierarchy, and item genealogy. If OPSM has been configured to create serials at shipment, the shipped item serials and component serials created in EBS are uploaded into OPSM at the time of shipment. The packaging hierarchy from EBS is also updated in OPSM at the time of shipment. Optionally, the lot can be created as part of the shipment transaction as well. OPSM validates the serials associated with the transaction to verify the status, state, lot expiration date, existence of the serial, along with other edits. If the shipment is to a customer where a change of ownership occurs, the serials are updated to indicate they have been shipped. Optionally, shipments with no change of ownership can be recorded in OPSM. If no change of ownership occurs, the serials will remain in their current state.

When the transaction has been successfully processed, it contains the details of the transaction including transaction details, shipped items, serials, reference documents, trading partners, lot information and product information, container packing hierarchy, and the shipped item genealogy.

The more technical details of the integration are:

When a delivery is shipped and the corresponding delivery details are interfaced to Inventory in EBS, a business event (`oracle.apps.wsh.delivery.gen.interfaced`) is triggered. The subscription of the business event submits a Java Rule Function if the delivery details have at least one OPSM Enabled Item. This Java Rule Function in turn calls the PL/SQL API, which returns all the ASN data in Table type objects. Using this data a Java Program generates the XML Payload and sends it to the JMS Producer. All messages are tagged with the processing date and time of the event to ensure that the messages can be sequenced and processed in the correct order.

This diagram illustrates the Shipment Transaction integration flow:



Shipment Transaction integration flow

Shipment Receipt (Return) Transaction Integration

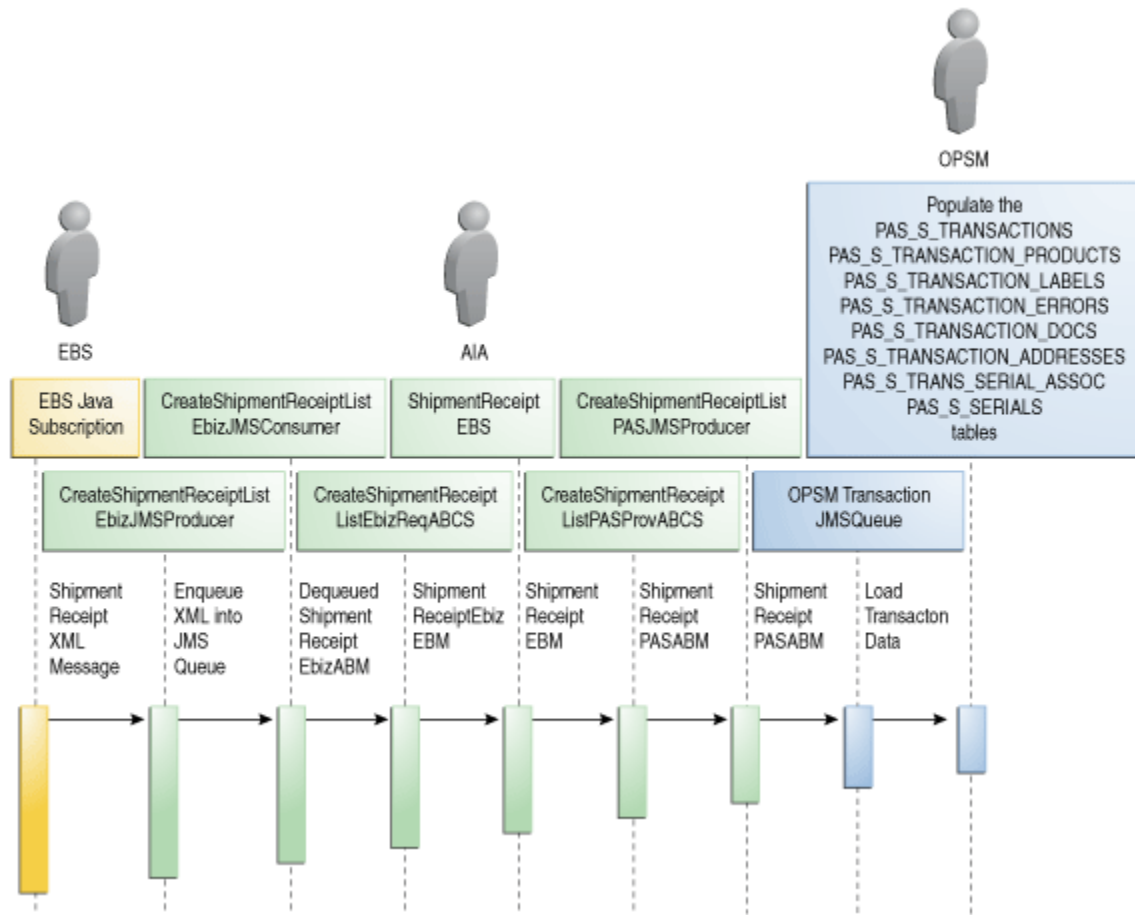
When an OPISM integrated item is returned in Oracle E-Business Suite, the transaction information for the receipt along with the serials are sent to the Oracle Pedigree and Serialization Manager (OPSM) system. This integration is achieved through the Serialized Item Tracking Process Integration (business events and AIA integration).

When the shipping receipt (return) transaction is processed in Oracle E-Business Suite, the returned product information is transmitted to Oracle Pedigree and Serialization Manager (OPSM) through the shipment receipt. The return receipt transaction records the details of the return in OPISM including the returned items, serials, product information, reference documents, transaction quantity, date, and trading partners. If the shipment receipt contains the returned serials, the serials are validated to verify the serials were previously shipped, have not been decommissioned, and have not been flagged as counterfeit. Optionally, returns with no change of ownership can be recorded in OPISM. If no change of ownership occurs, the serials will remain in their current state.

The more technical details of the integration are:

When a delivery is returned and the corresponding delivery details are interfaced to Inventory in EBS, a business event (oracle.apps.po.rcv.rcvtr.outbound) is triggered. The subscription of the business event submits a Java Rule Function if the delivery details have at least one OPISM Enabled Item. This Java Rule Function in turn calls the PL/SQL API, which returns all the shipment receipt data in Table type objects. Using this data a Java Program generates the XML Payload and sends it to the JMS Producer.

This diagram illustrates the Shipment Receipt (Return) Transaction integration flow:



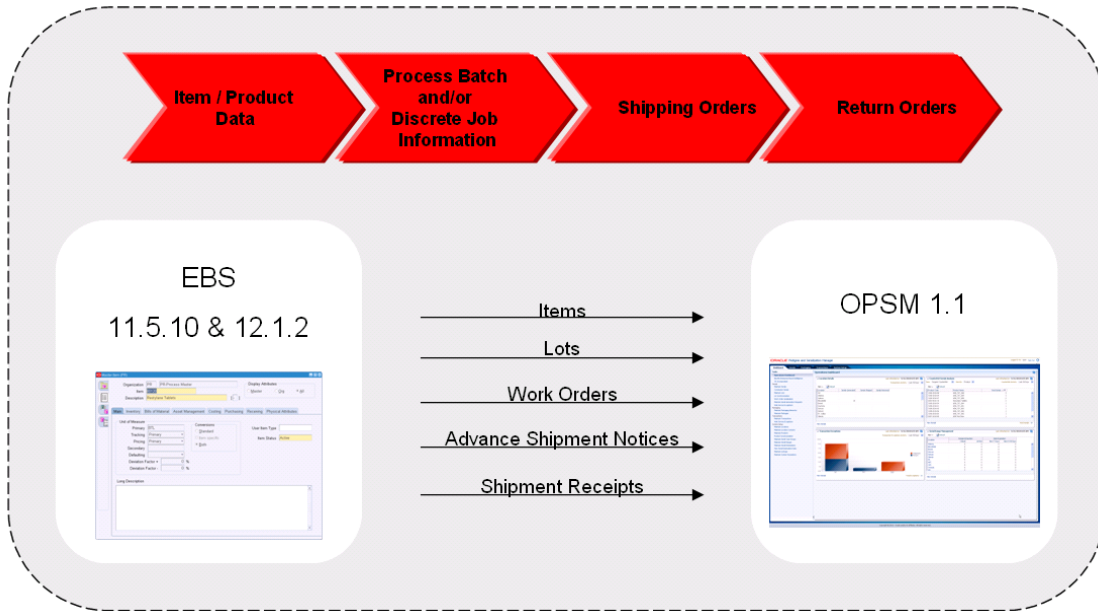
Shipment Receipt (Return) Transaction integration flow

Key Features

Here are the key features of this PIP:

- Built-in business process maps to enable capture of shipment and return transactions.
- Synchronized item/product, lot, and work order information.
- Customizable data synchronization.
- Pre-built user interface links between Oracle E-Business Suite and Oracle Pedigree and Serialization Manager.

This diagram illustrates the overall process flow of the Oracle Serialization and Tracking PIP:



Oracle Serialization and Tracking PIP overall process flow

Participating Application Enhancements

These enhancements fall into two main areas:

- Oracle E-Business Suite Release 11.5.10 and 12.1.2
- Oracle Pedigree and Serialization Manager Release 1.1

Oracle E-Business Suite Release 11.5.10 and 12.1.2

To support the Oracle Serialization and Tracking Process Integration Pack, several enhancements were made to Oracle E-Business Suite (EBS). These enhancements include:

- Five additional profile options were added to EBS:
 - INV_OPSM_ENABLED (INV: Enable OPSM Checkbox)
 - INV_OPSM_EBS_SRC_SYS_NAME (OPSM Integration: EBS Source System Name)
 - INV_OPSM_EBS_JMSQ_HOST (OPSM Integration: JMS Queue Producer URL Host)
 - INV_OPSM_EBS_JMSQ_PORT (OPSM Integration: JMS Queue Producer URL Port)
 - INV_OPSM_EBS_URL (OPSM Integration: OPSM URL)
- Organization Parameters window was enhanced to include the OPSM Enabled check box.
- Master Item and Organization Item Cross References were added to specify if an item is OPSM Integrated.
- Descriptive Flexfield Segments window was enhanced to be able to enter OPSM Serial Types as a segment in the flexfield. During item definition you can specify this flexfield for the item.
- Several windows were enhanced by adding an additional option on the Tools or Actions menu to be able to access the Oracle Pedigree and Serialization Manager application directly. These windows pertain to the Product Definition integration, Commission Serials integration, Shipment Transaction integration, and the Shipment Receipt (Return) Transaction integration.

Oracle Pedigree and Serialization Manager Release 1.1

To support the Oracle Serialization and Tracking Process Integration Pack, several enhancements were made to Oracle Pedigree and Serialization Manager (OPSM). These enhancements include:

- Several lookup types and codes were added to OPSM:

- PAS_ACTION_CODE (Action Code)
 - PAS_JOB_STATUS (Job Status)
 - PAS_LOT_EXTRACT (Lot Extract)
 - PAS_LOT_SYNCH_ACTIONS (Actions for Lot Synchronization)
 - PAS_PRODUCT_EXTRACT (Product Extract)
 - PAS_PRODUCT_SYNC_ACTIONS (Actions for Product Synchronization)
 - PAS_SOURCE_SYSTEM (Source System)
 - PAS_JOB_STATUS (Job Status)
 - PAS_WEB_SERVICES (Web Services for Exception Handling Review)
 - PAS_WO_SERIALIZATION_ACTIONS (Actions for Work Order Serialization)
 - PAS_WORK_ORDER_EXTRACT (Work Order Extract)
- Product Synchronization page was created for initiating the Product Synchronization process between Oracle E-Business Suite and OPSM.
 - Work Order Serialization page was created for initiating the Work Order Serialization process between Oracle E-Business Suite and OPSM.
 - Lot Synchronization page was created for initiating the Lot Synchronization process between Oracle E-Business Suite and OPSM.
 - Commission Serials page was enhanced to assist with commissioning serials directly from Oracle E-Business Suite.
 - Maintain Transactions page was enhanced to assist with shipment and shipment receipt (return) transactions processing from Oracle E-Business Suite.

Foundation Pack Enhancements

These enhancements fall into the Enterprise Business Objects (EBO) area.

For more information about the enhancements to the foundation pack, see the release notes for Oracle AIA Foundation Pack 3.1.

EBO Enhancements

EBO enhancements include:

- AdvanceShipmentNoticeEBO: The following attributes were added to the EBO:
 - Shipment / CustomerPartyReference
 - Shipment / SupplierPartyReference
 - Shipment / OwnershipChangeIndicator
 - Shipment / AuditHistory
 - Shipment / ShipmentItem / ShipmentItemLot
 - Shipment / ShipmentItem / ShipmentItemInstance
 - Shipment / ShipmentItem / ShipmentItemInstanceRange
 - Shipment / ShipmentItem / ShipmentItemInstanceGenealogy
 - ShipmentUnit / ParentShipmentUnitIdentification
 - ShipmentUnit / ShipmentUnitContainer / ContainerItem / ContainerItemInstance
 - ShipmentUnit / ShipmentUnitcontainer / ContainerItem / ContainerItemInstanceRange
- ShipmentReceiptEBO: The following attributes were added to the EBO:
 - AuditHistory
 - ShipFromPartyReference
 - ShipToPartyReference
 - CustomerPartyReference
 - OwnershipChangeIndicator
 - ShipmentReceiptLine / ShipmentReceiptItemLotReference
 - ShipmentReceiptLine / ShipmentReceiptTransaction
 - ShipmentReceiptLine / ShipmentReceiptItemInstance
 - ShipmentReceiptLine / ShipmentReceiptItemInstanceRange

- ItemLotEBO: This EBO was created based on the ItemLot component definition used within the ItemLotBalanceEBO. The following attributes were then added to the EBO definition:
 - Item Reference
 - BestByDate
 - SellByDate

Additional Resources

There are additional resources that can help your organization learn more about this release.

Resource	Navigation
Process Integration Pack Implementation Guides	Oracle Technology Network: http://www.oracle.com/technetwork/index.html
Foundation Pack Guides	Oracle Technology Network: http://www.oracle.com/technetwork/index.html
Installation and Upgrade Guide	Oracle Technology Network: http://www.oracle.com/technetwork/index.html

Visit the [My Oracle Support/Oracle Metalink website](#) frequently to keep apprised of ongoing changes.

For other sources of documentation, visit [Oracle Technology Network: Oracle Documentation](#).

For training opportunities, visit [Oracle University](#).