

Oracle® Application Integration Architecture for
Communications 2.5: Release Notes

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Contents

Value Proposition for Oracle Application Integration Architecture for Communications 2.5	3
Overview	4
Key Features	4
Key Business Benefits	4
Product Enhancements for the Order to Activate PIP	6
Offer Design Overview	6
Order Delivery Overview	6
Order Fulfillment Management	7
Order Status Management	8
Order Fallout Management	8
Product Enhancements for the Oracle Product Master Data Management Integration	9
Support for Oracle Product Hub for Communications	9
Integration Option for Siebel CRM and Oracle E-Business Suite	10
Integration Option for Oracle BRM	11
Improved Integration Framework*	11
Interoperability with the Order to Bill PIP	12
Product Enhancements for the Oracle Communications Integration Pack for Order to Bill	13
Simple Service Bundles	13
Order Revision Support*	14
Time-Based Offerings*	14
Interoperability with the Product MDM PIP	14
Additional Resources	15

Value Proposition for Oracle Application Integration Architecture for Communications 2.5

This document provides an overview of the value proposition that is associated with the new features and enhancements for Oracle Product Master Data Management Integration Base Pack, Oracle Order to Activate Integration Pack for Siebel CRM and Oracle Communications Order and Service Management (Order to Activate), and Siebel CRM Integration Pack for Oracle Communications Billing and Revenue Management: Order to Bill (Order to Bill) process integration packs (PIPs) for release 2.5. It is a roadmap that is intended to help you assess the business benefits of these PIPs and plan your information technology (IT) projects and investments.

The new features and enhancements in this release are grouped according to licensed product. This document describes new or changed functionality only. Existing functionality from prior releases is not described here.

The combination of Oracle Product Hub for Communications (OPH) and the Oracle Product Master Data Management (MDM) integration pack improves the offer design process and reduces the time to market of new and modified commercial offerings. However, this piece remains optional in the Application Integration Architecture (AIA) for Communications footprint which retains the integration from Oracle Billing and Revenue Management (BRM) to Siebel (for product and discount synchronization) as part of the Order to Bill PIP. When used, this combination of OPH and Product MDM integration pack replaces the product and discount synchronization from Oracle BRM to Siebel.

Our goal is to ensure that you leverage technology to its fullest to increase the efficiency and effectiveness of your operations.

Note: Some of the features described in this document require the AIA Integrated Patch Set 1 (IPS1) to be applied on top of AIA 2.5. Such features are marked with an asterisk (*).

The AIA Integrated Patch Set 1 is mandatory for all new and existing customers who license any of the following PIPs:

- Order to Bill
- Siebel CRM Integration Pack for Oracle Communications Billing and Revenue Management: Agent Assisted Billing Car (Agent Assisted Billing Care)
- Oracle Product Master Data Management Integration Base Pack (Product MDM Base Pack)
- Oracle Product Master Data Management Integration Option for Siebel CRM (Product MDM: Siebel Option)
- Oracle Product Master Data Management Integration Option for Oracle E-Business Suite (Product MDM: EBS Option)

For more information, see *AIA Communications 2.5 Integrated Patch Set 1* posted in article ID 1097021.1 on My Oracle Support.

Overview

Communication Service Providers (CSP) face numerous challenges today in the form of increased competition, rapidly changing market demands, pressure to launch more offers faster, control of operational expenses, and strengthening customer relationships. One of the keys to successfully navigating these challenges is to view them holistically while focusing locally on the highest impact areas.

The creation of an integrated offer design and order delivery environment that quickly responds to changing business demands and promotes concerted efforts to fulfill customer commitments is now possible.

Key Features

These are the key features offered to communications service providers:

- To design front-office and back-office operations for new offers.
- Capture and manage order provisioning tasks efficiently.
- Have complete end-to-end visibility into order processes.

Key Business Benefits

These are the key business benefits of the rapid offer and order delivery solution to communications service providers.

- Faster system implementation and time to market.
- Shorter order cycle time.
- Lower operations expenses through elimination of service-based silos.

Oracle provides the most comprehensive order to cash solution for enhanced customer experience, fast time to cash, and operational cost savings.

Offer Design

These are the key business benefits of the offer design solution:

- Decreased Time-to-Market for New Offer Introduction
 - Speed up offer design with pre-built, extensible product data model.
 - Synchronize offer definition with productized integration to Siebel CRM, Oracle E-Business Suite, Oracle BRM, and Order and Service Management OSM.
 - Eliminate errors and delays with workflow-driven offer introduction and change processes.
- Accelerated Integration Project Implementation
 - Leverage extensible integration processes with Oracle “MDM-aware” applications.
 - Extend pre-built common objects and services provided by the AIA Foundation Pack to

meet any additional customer requirements.

- Reuse Oracle Product Hub for Communications' robust publication services for accelerated integration with third-party applications.
- Reduced Total Cost of Ownership
 - Reduce integration design and implementation costs with pre-built integration.
 - Allocate less work on maintenance and interoperability issues with the open, standards-based AIA framework.

Order Delivery

These are the key business benefits of the order delivery solution:

- Shortened Order Cycle Time
 - Manage all types of customer order requests including MACD orders, future-dated orders, follow-on orders, order revisions and cancelations, and priority orders.
 - Increase order accuracy with decomposition of the sales order and generation of a unique orchestration plan for it.
- Reduced Cost of Fallout Orders
 - Decrease number of billing errors with billing update coordination as part of order fulfillment.
 - Pro-actively manage fallout incidents with trouble ticket integration.
 - Keep closed-loop order status feedback to Siebel CRM with order lifecycle management status composition.
- Increased Operational Efficiency
 - Prevent the need for thousands of fulfillment flows for commercial product offers with dynamic data-driven order orchestration.
 - Rationalize and prevent costly silo solutions with a single order delivery platform that can be implemented over time at your own pace.
 - Process integration packs and application connectors provide out-of-the-box Communications business logic and value in the order delivery chain.

Product Enhancements for the Order to Activate PIP

The new Order to Activate Process Integration Pack in release 2.5 is a key component of the Oracle Rapid Offer Design and Order Delivery solution, and it plays a role both in the Offer Design and Order Delivery phases.

As an essential component of the Rapid Offer Design and Order Delivery solution, Oracle application integration architecture (AIA) for Communications provides key extensible process integrations between the Oracle Product Hub for Communications, Siebel CRM, Oracle Billing and Revenue Management (BRM), and Order and Service Management (OSM) applications for both the offer design and order delivery processes

Offer Design Overview

Offer Design is the integration between Siebel CRM and OSM Design Studio. A key design principle of the Rapid Offer Design and Order Delivery solution is the decoupling between commercial offerings and fulfillment flows. This decoupling is ensured by mapping product classes to product specifications, which are one of the basic entities used to build fulfillment flows in OSM.

As part of the offer design process, whenever the item catalog categories, transaction attributes and their associated value sets are created or updated in Oracle Product Hub for Communications, they are synchronized to Siebel CRM as product classes, product class attributes and attribute definitions respectively. The product classes of Siebel CRM are then queried and mapped to product specifications in OSM Design Studio. In AIA for Communications 2.5, this process is enabled by the Order to Activate PIP.

The Offer Design solution comprises of these Oracle products:

- Oracle Product Data Hub for Communications for enterprise product catalog.
- Siebel CRM for sales catalog and sales data enrichment.
- Oracle Billing and Revenue Management for billing data enrichment.
- Oracle Product Master Data Management Integration Base Pack and Options for extensible product data integration from Oracle Product Hub for Communications to Oracle BRM and Siebel CRM.
- Order to Activate Process Integration Pack for synchronization of product definition metadata from Siebel CRM to OSM.

Order Delivery Overview

Order delivery is the integration between Siebel CRM and OSM. This order delivery solution comprise of these Oracle products:

- Siebel CRM for sales catalog definition, multi-channel order capture and trouble ticketing.

- OSM for order mapping, decomposition and orchestration; order change management; order fallout management; and order status management.
- Provisioning (OSM) for the orchestration of service design and service delivery.
- Oracle Billing and Revenue Management (BRM) for billing.
- Order to Activate PIP for extensible order delivery integration for Siebel CRM, OSM central order management, OSM service order management, and billing.
- Order to Bill PIP for extensible account synchronization and order billing integration for Siebel CRM and Oracle BRM.

As part of the Order Delivery process, the Order to Activate PIP works with the Order to Bill PIP and participating applications (for example CRM, Billing) to enable business processes related to order fulfillment, order status, and order fallout management.

Order Fulfillment Management

Siebel Customer Relationship Management (CRM) making AIA customer order fulfillment requests to Order Management is available through both the Order to Activate PIP and the Order to Bill PIP. With the Order to Activate PIP, the AIA customer order fulfillment requests are routed to OSM Central Order Management for mapping, decomposition and orchestration. The following types of customer orders are supported:

- New orders: order for first-time purchases.
- Change orders: add, delete, update, suspend, resume and move asset-based orders.
- Revision orders: revised version of an order already submitted to fulfillment. Revision orders can be submitted to fulfillment while the revised order has not passed its point of no return, i.e. it is in a fulfillment state that allows for order revisions.
- Follow-on orders: order that has fulfillment completion dependency on other orders.
- Future-dated orders: order whose requested delivery date time is in the future.

The Order to Activate PIP carries over the order priority, as defined in Siebel, so that it is taken into account in the order orchestration plan. It also supports the order fulfillment mode, which enables Siebel CRM to send orders to OSM Central Order Management for different purposes: Deliver (for order delivery) or Qualify (for technical service qualification). The fulfillment mode can be extended for additional purposes like costing, pricing, etc.

Once it has dynamically generated the order orchestration planned, and in order to process the order downstream, OSM Central Order Management makes:

- AIA provisioning service requests, which can be routed to OSM Service Order Management by the Order to Activate PIP.
- AIA billing requests to create customer accounts in billing and interface orders to billing, which can be routed to BRM by the Order to Bill PIP.

Order Status Management

One of the key roles of OSM Central Order Management in the Rapid Offer Design and Order Delivery solution is to collect status information from the different fulfillment systems involved in the delivery of a customer order (for example, Billing, Provisioning, Shipping, etc.) and to maintain order status both at the header and line levels.

OSM Central Order Management receives AIA fulfillment order status updates as well as AIA fulfillment request responses to update customer order status. With Order to Activate fulfillment order updates are received from OSM Service Order Management, billing or any fulfillment provider the solution is extended to include.

OSM Central Order Management sends AIA order data and status updates to CRM. With Order to Activate (or Order to Bill) these updates are routed to Siebel CRM. This gives end users (Customer Service Representatives using Siebel applications, or consumers using self-service) access to the most up-to-date order delivery information.

In addition, OSM Central Order Management updates CRM when order lines reach their point of no return to prevent the submission of new revisions.

Order Fallout Management

Another key role of OSM in the Rapid Offer Design and Order Delivery solution is to provide for detection, reporting, and resolution of order fulfillment fallout conditions.

OSM Central Order Management processes any error caught by OSM and AIA as fallout incidents and sends AIA trouble ticket create and update requests. With Order to Activate PIP those requests are routed to Siebel CRM, in order to take advantage of its rich notification, reporting, and management capabilities. This integration reduces the number of lost orders, provides a faster resolution to fallout incidents, and eliminates unnecessary operational and IT costs.

Product Enhancements for the Oracle Product Master Data Management Integration

This section provides an overview of the Oracle Product Master Data Management Integration along with the list of new features and enhancements for release 2.5.

Note: Some of the features described in this document require the AIA Integrated Patch Set 1 (IPS1) to be applied on top of AIA 2.5. Such features are marked with an asterisk (*).

For more information, see *AIA Communications 2.5 Integrated Patch Set 1* posted in article ID 1097021.1 on My Oracle Support.

The process integration pack for Oracle Product Hub (or Product Information Management [PIM]) provides industry-neutral and application integration architecture (AIA) based enterprise-data-management solution that enables customers to centralize all product information from heterogeneous systems to create a single view of product information. It supports concept to launch process where the metadata, items, and BOMs are defined in Oracle Product Hub and published to the registered target applications.

These are the new features and enhancements:

- Support for Oracle Product Hub for Communications
- Integration option for Siebel CRM and Oracle E-Business Suite
- Integration option for Oracle BRM
- Improved integration framework*
- Interoperability with the Order to Bill PIP

Support for Oracle Product Hub for Communications

The Oracle Product MDM integration base pack and options now support Oracle Product Hub (OPH) for Communications in addition to the horizontal Oracle Product Hub edition.

- The synchronization processes support the OPH Communications Library – a set of 300+ seeded attributes that enable product administrators to define Communications-specific characteristics like Billing Pricing, Billing discounts related information, Fulfillment information, and so on.
- The integration enables communications service providers (CSP) to model all the elements of their complex commercial offering in Oracle Product Hub and to synchronize them to the relevant target applications:
 - Service bundles, Commercial Bundles, Commercial Offers or Promotions.

- Promotion-based discounts.
- Promotion upgrades, downgrades, and commitment rules.
- Compatibility rules.
- Pricing adjustments and overrides.

For more information about product definition, see *Guidelines and Product Definition Methodology for Oracle MDM Product Hub Integration* posted in article 1086492.1 on My Oracle Support.

Integration Option for Siebel CRM and Oracle E-Business Suite

The integration options for Siebel CRM and Oracle E-Business Suite support these features:

- Metadata synchronization from Oracle Product Hub to Siebel CRM
 - Synchronization of item catalog categories (ICCs) to product classes, along with related entities such as attribute groups, user-defined attributes (UDA), transaction attributes, and associated versionable valuesets.
 - Synchronization of domain values to attribute definition.
 - Multi-Language support for ICCs and domain values.
 - Lifecycle tracking for ICC and versionable valuesets synchronization in OPH publication history.
- Product data synchronization: Common to Siebel CRM and Oracle E-Business Suite
 - Support real-time publishing of a group of entities from OPH in a Batch
 - Support for explicit routing of published entities by declaration of target systems in OPH.
 - Filtering products, product structures, promotions, and discounts (Siebel only) based on destination system.
 - Tracking the lifecycle for products, promotions, and discounts (Siebel only) in OPH publication history.
- Product data synchronization: Specific to Siebel CRM
 - Support for workspace management of products, product structures, promotions and discounts.
 - Synchronize attribute value overrides in context of promotions.
- Product data synchronization: UDA Publication
 - Capability to publish any type of user-defined attribute defined within OPH.
 - Flexible framework to enable UDAs to be consumed by any participating application, with minimal customization, irrespective of how UDAs are modeled inside the consuming application.

For more information about user-defined attributes, see the *UDA Extension* document for Oracle Product MDM Integration on My Oracle Support.

Integration Option for Oracle BRM

In this 2.5 release a new Oracle Product Master Data Management Integration Option for Oracle Billing and Revenue Management (BRM) is released. This integration option augments the offer design phase of the Rapid Offer Design and Order Delivery solution and enables the publication of billing products and discounts from OPH for Communications to Oracle BRM.

The Oracle BRM integration option supports these features:

- Publication of simple products with pricing information defined in Oracle Product Hub.
- Publication of billing entities such as events or charges, rate plans, rate tiers, days, time ranges, rate data and balance impacts defined in Oracle Product Hub.
- Publication of discounts defined in Oracle Product Hub (OPH).
- Explicit routing of published entities by declaration of target systems in OPH
- Support real-time publishing of a group of entities from OPH in a Batch
- Tracking the lifecycle for products and discounts in OPH publication history.

Improved Integration Framework*

The Oracle Product MDM integration has been enhanced with these features:

- Improved performance with introduction of chunking for bill of material (BOM) synchronization. To avoid or minimize instances of transaction timeout or heap-memory issue, the OPH requestor service has been enhanced to fetch the payload from the OPH in fixed chunks or size.
- Improved support for item template definition with support of class type structure for item catalog category (ICC) synchronization. An ICC can be associated with a structure of a specific type. Items can be added as structure components. Simple items, model type bill of material items and items with option class BOM can be added as components and synchronized to Siebel CRM.
- Simplification of the product definition methodology. Changes and regrouping of the attributes across the various attribute groups in the Communications seeded library simplify the user experience in creating products, discounts, bundles and promotions. Additionally, compatibility rules mastering is supported.
- Improved flexibility for item definition and management with enhanced support for custom UDAs. The constraint that existed on custom UDAs prefixing with 'XX_' has been relaxed.
- Better control for item release management from Oracle Product Hub. In this release, the publication of a product having no price list or no components or both is supported.

Interoperability with the Order to Bill PIP

For more information about the interoperability of PIPs, see the *Oracle Application Integration Architecture 2.5: PIP Functional Interoperability Configuration Guide*.

Product Enhancements for the Oracle Communications Integration Pack for Order to Bill

This section provides an overview of the Oracle Product Master Data Management Integration along with the list of new features and enhancements for release 2.5.

Note: Some of the features described in this document require the AIA Integrated Patch Set 1 (IPS1) to be applied on top of AIA 2.5. Such features are marked with an asterisk (*).

For more information, see *AIA Communications 2.5 Integrated Patch Set 1* posted in article ID 1097021.1 on My Oracle Support.

The Oracle Communications Integration Pack for Order to Bill automates the order management process between Siebel CRM, and Oracle BRM, including automatic product and price synchronization, customer synchronization and integrated order processing.

In AIA for Communications version 2.5, the Oracle Order to Bill PIP delivers the following enhancements:

- Simple Service Bundles
- Order Revision Support*
- Time-Based Offerings*
- Interoperability with Product MDM PIP (including the options)*

Simple Service Bundles

This new, optimized service bundle methodology is introduced in AIA for Communications version 2.5. Up to 2.4, after billing products and discounts have been synchronized from BRM to Siebel, a Siebel product administrator has to create a Complex Product (CP) to represent a service bundle.

With Simple Service Bundles, at design time:

- A subscription product (Simple or Complex) synchronized from BRM can be flagged as 'Service Instance' in Siebel, removing the need to create a parent CP.
- Additional billing products/discounts or special rating products cannot be included within a simple service bundle.

And at run time:

- When a simple service bundle is purchased, it generates both a service instance and a purchased product instance in BRM.
- When a simple service bundle is disconnected, both the service instance and the product are disconnected in BRM.

Note: Both the classic and the optimized methodologies can coexist.

Order Revision Support*

The fulfillment of certain Communications services may take days or weeks and some business-to-business and infrastructure projects may even take months to complete. During this order fulfillment period, customers may change their mind and request modifications to their orders that translate into revision orders in Siebel.

In version 2.5, the interfaces that synchronize customer data (referenced on an order) and order to BRM have been enhanced to support order revision scenarios between the time the order is processed for customer sync and the time it goes through billing fulfillment. They now support different actions based on the compensation required to process the revision.

The business benefits of this enhancement include:

- Enhanced customer satisfaction by allowing customers to make changes to their orders.
- Reduced costs associated with fulfilling unwanted or products and configurations with all potential waste of system bandwidth, unrecoverable resources, acquired stock, etc.
- Reduced volume of human intervention to manually retrofit data records in cases when recovery can't be automated.

Time-Based Offerings*

In order to attract new customers, virtually all CSPs launch offers that include a discount applying only for a specified time period. For example, a \$29.99/month wireless plan will include a 50% discount for the first 3 months for customers who subscribe a one-year contract.



The new Time-Based Offerings feature enables CSPs to support such offers from both an offer design and order delivery perspectives, without requiring ongoing maintenance.

Interoperability with the Product MDM PIP

For more information about the interoperability of PIPs, see the *Oracle Application Integration Architecture 2.5: PIP Functional Interoperability Configuration Guide*.

Additional Resources

There are many additional resources that will help your organization determine the affects of upgrading to this release.

Visit the *My Oracle Support* website frequently to keep apprised of ongoing changes. This table lists the types of resources that are available:

Resource	Details
Oracle Application Integration Architecture 2.5: Installation and Upgrade Guide	Provides details about the installation and upgrade of Foundation Pack and the Process Integration Packs.
Oracle Application Integration Architecture – 2.5: Product-to-Guide Index	Provides a list of documentation relevant to each product in Oracle AIA 2.5.
Oracle Application Integration Architecture – Foundation Pack 2.5 Documentation Set	<ul style="list-style-type: none"> • <i>Oracle Application Integration Architecture - Foundation Pack 2.5: Getting Started with the Oracle AIA Foundation Pack and Demo</i> • <i>Oracle Application Integration Architecture - Foundation Pack 2.5: Concepts and Technologies Guide</i> • <i>Oracle Application Integration Architecture - Foundation Pack 2.5: Integration Developer's Guide</i> • <i>Oracle Application Integration Architecture - Foundation Pack 2.5: Core Infrastructure Components Guide.</i>
Oracle Application Integration Architecture – Enterprise Object Library 2.5 Documentation Set	<ul style="list-style-type: none"> • <i>Oracle Application Integration Architecture - Enterprise Object Library 2.5: Enterprise Business Objects and Messages XML Naming and Design Rules</i> • <i>Oracle Application Integration Architecture - Enterprise Object Library 2.5: UML Profile for CCTS Enterprise Business Objects</i>
Oracle Application Integration Architecture 2.5: Business Process Guide	Provides details about the Business Process models included with the release.
PIP Implementation Guides.	PIP-specific implementation guides provide details on the implementation and configuration of the PIP.

For documentation, reference:

<http://edelivery.oracle.com>

For Training opportunities, reference:

http://education.oracle.com/web_prod-plq-dad/plsql/show_desc.redirect?redir_type=3