Oracle® Application Integration Architecture

Oracle Product Master Data Management Integration Release Notes

Release 11.1

E25738-03

January 2012

ORACLE®

Oracle Application Integration Architecture Oracle Product Master Data Management Integration Release Notes, Release 11.1

E25738-03

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Oracle Product Master Data Management Pre-Built Integration 11.1 – Release Value Proposition

This document provides an overview of the value proposition that is associated with Oracle Product MDM PIP Release 11.1. This document must be used to assess the business benefits of Oracle Product MDM PIP Release 11.1 and plan your information technology (IT) projects and investments.

The release notes lists all the components of the Oracle Product MDM PIPs, provides a brief overview of the new functionalities and the value proposition and application of each of the components. Oracle Fusion Middleware/SOA Suite 11*g* adoption methodology is covered in detail in the *Oracle® Fusion Middleware Migration Guide for Oracle Application Integration Architecture 11g, Release 1 (11.1.1.5.0)*. The document concludes by providing additional resources that will assist in evaluation of usage of the Oracle Product MDM PIPs in various industries and products.

This document describes new or changed functionality only. Existing functionality from prior releases is not described here.

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

The information provided in this document is intended to outline our general product direction and is intended for information purposes. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Oracle Product MDM PIPs - Value Proposition Overview

The Product Master Data Management process integration pack provides industry-neutral and application integration architecture (AIA) based enterprise-data-management solution that enables customers to centralize and manage common all product information in Oracle Product Hub (OPH) and propagate to heterogeneous systems. This supports maintaining a single view of product information in the Product Master, in this case Oracle Product Hub (OPH). It supports concept to launch process where the metadata, items, and Bill Of Materials (BOMs are defined in Oracle Product Hub and published to the registered target applications.

Oracle Product Hub (OPH) provides a user-defined attribute (UDA) framework that can be used to model various industry specific and neutral entities in a number of ways consistently using the single definition of an Item, and can be subsequently propagated using the process integration across multiple types of registered target applications.

The Product MDM PIP provides pre-built integration packs with the following applications as options:

1. Product Master Data Management PIP – Base Pack Option (Oracle Product Hub)
2. Product Master Data Management PIP – E-Business Suite Option
3. Product Master Data Management PIP – Siebel Option
4. Product Master Data Management PIP – Oracle BRM Option

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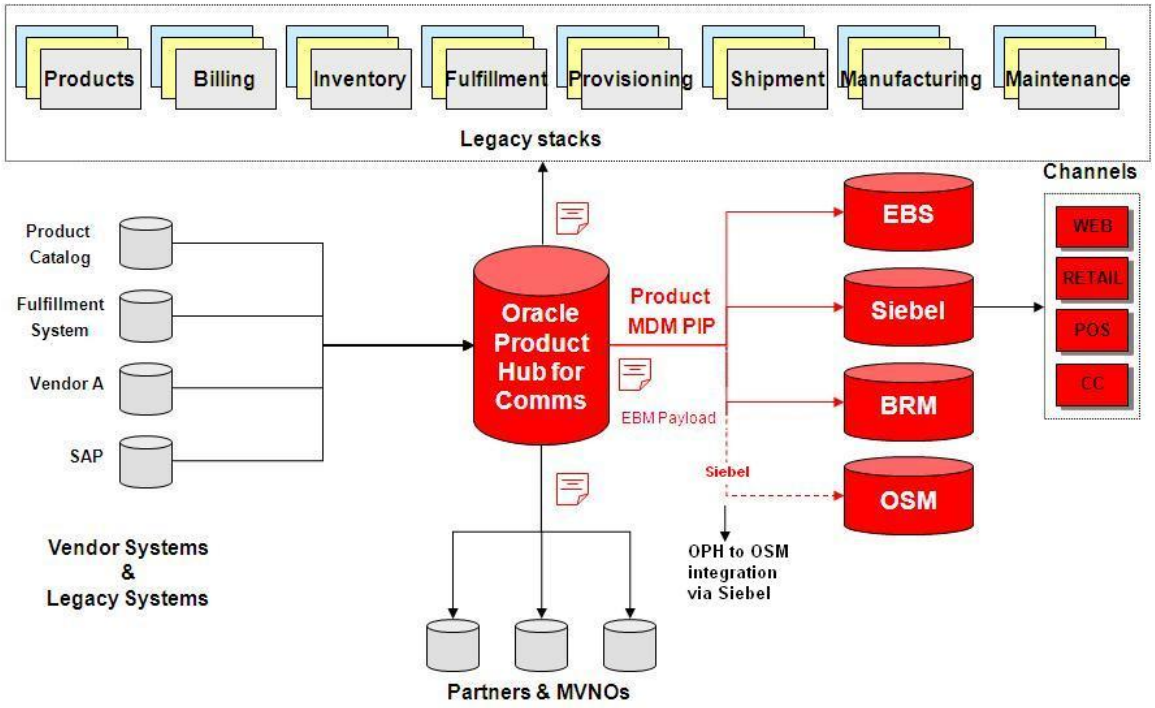
For more information about application versions certified by the pre-built integrations, see the *Oracle AIA Certification Matrix*.

This figure shows how the centralized Oracle hub is integrated using the Product MDM integration:



Centralized Oracle Product Hub integrated using the Product MDM PIP

Need for Master Data Management Integration: Challenges Overview

Companies across the globe that belong to various industries, such as manufacturing, retail, high-tech, communications, and so on who deal with products and services on a day-to-day basis, face numerous challenges with respect to product data management. These challenges include:

1. Data Centralization
2. Long time to market for new product or service introductions
3. Complex data management across different application types
4. Increased operational costs with rigid implementations and point to point integrations
5. Co-existence of new and old infrastructure leading to new and old product designs, etc

This figure describes the data managed across different applications:

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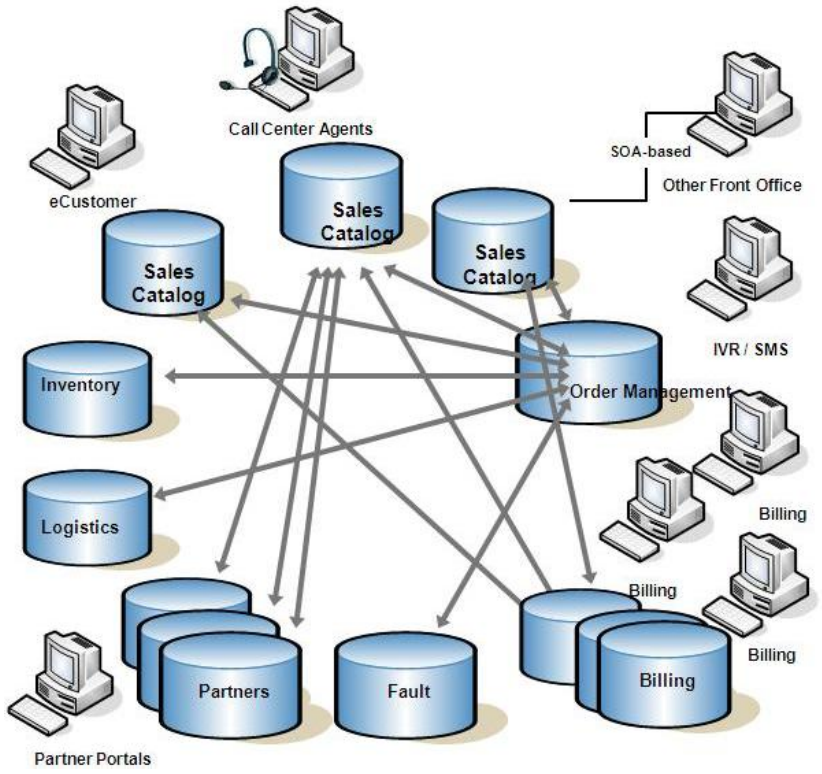

Typical Product Data Landscape

Key Features

There are no new functional flows enabled as part of Product MDM PIP release 11.1. The key features and functional flows supported in Product MDM PIP 2.5 – Integrated Patch set 1 has been migrated to 11*g* platform and the known issues and customer bugs are fixed. For a complete list of key features refer to the Product MDM PIP 2.5 IPS1 Release Notes at support.oracle.com, Note Id - 983702.1.

Key Benefits

The major benefits of the Oracle Product Hub PIP include, but are not limited to:

- Accelerated implementation of Product MDM integration.
- Lowered Total Cost of Ownership (TCO).
- Accelerated Service Oriented Architecture (SOA) enablement.

Faster MDM Implementation

MDM Projects can be significantly accelerated with the use of the following out of the box capabilities:

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a. Rich set of pre-built standards based MDM integration processes that prevent complex integration development - one of the most time consuming task of any MDM project.

b. Pre-built MDM aware participating applications prevent complex intrusive modification of these systems, which is another daunting work stream.

c. Pre-built composite Oracle Product Hub web services prevent the need to build complex orchestration of granular web services.

Lowered Total Cost of Ownership

The Oracle Product Hub PIP solution results in lower TCO using:

a. An AIA framework that enables companies to allocate less work on maintenance and interoperability issues resulting in less time to design and implement integrations.

b. The AIA Foundation Pack that provides pre-built common objects and services that can be easily extended and customized as required by the customer.

Accelerated Service Oriented Architecture Enablement

Built on the Oracle Application Integration Architecture (AIA) framework, the integration includes everything you need to rapidly enable service-oriented applications – from business processes to common objects and services, to SOA Governance at greatly reduced cost.

AIA Process Integration Packs are designed to be easily extended to evolve as your business changes, allowing you to respond to customer and market needs with greater agility and flexibility. Customers can realize increased efficiency in cross application business processes, by using cleansed, consolidated, and enriched customer data while achieving lower cost of ownership.

The Product MDM PIP together with centralized product data management application Oracle Product Hub provides the following additional benefits

1. Extensible Framework makes it easy to integrate non-Oracle applications
2. Standardized integration patterns and Canonical model definition
3. Rapid design and launch processes reducing time to market
4. Pre-Integrated best of breed offering consistency in silos
5. Enterprise agility (easier migration ability)

Oracle Product Hub for Communications:

The Product MDM PIP is a key component of the Rapid Offer Design and Order Delivery (RODOD) that provides extensible process integrations between Oracle Product Hub for Communication, Siebel CRM, Billing & Revenue Management (BRM) and Order & Service Management (OSM) applications for offer design and launch processes.

The Offer Design solution offers the following business benefits to Customers in the Service Industry. For example Communications Service Providers:

1. Decrease Time-to-Market for New Offer Introduction

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- Speed up offer design with pre-built, extensible product data model
- Synchronize offer definition with productized integration to Siebel CRM, E-Business Suite, BRM, and OSM
- Eliminate errors and delays with workflow-driven offer introduction and change processes

2. Accelerate 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 Product Hub for Communications robust publication services for accelerated integration with third-party applications
3. Reduce 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

There are no new functional flows enabled as part of Product MDM PIP release 11.1. The changes include migration to 11*g* platform 11*g* and fixes for known issues and customer bugs. Refer to Note ID **967491.1** on My Oracle Support.

The new enhancements to the Oracle Application Integration Architecture (AIA) for 11gR1 (11.1.1.5.0) fall into the following areas:

Oracle Fusion Middleware/SOA Suite 11g adoption
Simplified Installation, Deployment and Configuration of prebuilt integrations

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Oracle Product Master Data Management Pre-Built Integration 11.1 – Product Enhancements

Functionally, the Product MDM 11.1 pre-built integration is the same as the Product MDM 2.5 pre-built integration. The biggest difference between these two versions is the adoption of the SOA 11g platform. The 11g platform offers the following benefits:

- Service Component Architecture:
  - AIA artifacts promoted as composites
  - Deploy connector services as reusable components
  - Improved performance and scalability
- Metadata Services:
  - Centralized XREF, including ability to support multi-table XREF, Domain Value Maps, System Configuration to enable sharing of metadata information across multiple installations
  - Centralized AIA Home serves as design time repository, content deployed to multiple remote servers
- Enterprise Manager
  - Improved visibility into error context through direct drill-down into Enterprise Manager Console
- Simplified Installation, Deployment, & Configuration of prebuilt integrations
  - In prior AIA releases, installation, deployment and configuration of prebuilt integrations was done in one step. With AIA 11.1, the installation, deployment and configuration process are three distinct steps enabling customers to complete each step as and when they are ready.

11.1 Migration

AIA for Communications 11.1 includes the pre-built integration (listed in the table above) on 11gR1. If customers have customized or extended the out-of-the-box 2.x services, then they need to re-evaluate and merge those customizations and extensions into the shipped 11G services. Custom AIA services can be migrated with the help of the AIA Migration Utility, which is delivered as a part of Foundation Pack 11gR1 (11.1.1.5.0). Foundation Pack 11gR1 (11.1.1.5.0) provides a migration strategy for the AIA services developed on Foundation Pack 2.4 and 2.5 and later.

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For more information about migration, see *Oracle Application Integration Architecture Foundation Pack: Migration Guide for Foundation Pack 11gR1*.

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Oracle Fusion Middleware/SOA Suite 11g Adoption

Oracle AIA for Communications 11.1 certifies prebuilt integration packs across Oracle Applications on Oracle Fusion Middleware 11gR1 (11.1.1.5.0). This release speeds time to value of the development of loosely coupled process integrations by harnessing the combined power of predefined application integration and Oracle Fusion Middleware 11gR1.

AIA Foundation Pack 11gR1 (11.1.1.5.0) is designed for use in developing and deploying SOA solutions on Oracle Fusion Middleware/SOA Suite 11g.

AIA Foundation Pack 11gR1 (11.1.1.5.0) programming models are geared to take advantage of the following aspects of Oracle Fusion Middleware/SOA Suite 11g:

Adoption of the Service Component Architecture (SCA)

SOA composite application is an assembly of services, service components, references, and wires designed and deployed together to meet a business need. The SCA assembly model provides the service details and their interdependencies to form composite applications. The SCA enables you to represent business logic as reusable service components that can be easily integrated into any SCA-compliant application. The resulting application is known as a SOA composite application. The specification for the SCA standard is maintained by the Organization for the Advancement of Structured Information Standards (OASIS) through the Open Composite Services Architecture (CSA) Member Section.

For more information, see *OASIS Open CSA*.

The various AIA service artifacts – Application Business Connector Services (ABCSs), Enterprise Business Services (EBSs), Enterprise Business Flows (EBFs), and Composite Business Processes (CBPs) are SCA composites. This brings the SOA SCA advantage of standards-based deployment models and assembly models to AIA service artifacts.

The following programming models are provided:

- Detailed programming guidelines for various AIA service artifacts
  - Synchronous request-response message exchange pattern (MEP)
  - Asynchronous one-way MEP
  - Asynchronous request-delayed response MEP
  - Publish-subscribe MEP
  - Message aggregation MEP
  - Error handling and recovery for various MEPs
  - Security
  - Managing transactions across multiple services in different MEPs

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    - Guidelines for transformation of messages

- Use of the WebLogic Java Message Service (JMS) server

  The WebLogic JMS server is leveraged in various MEPs, suggesting the use of store-and-forward mechanisms.

- Uptake of Oracle Metadata Services Repository (MDS) for asset centralization patterns

The following artifacts are stored in the MDS:

- All abstract WSDLs, schemas, and shared XSLs pertaining to the canonical model and applications
- AIAConfigurationProperties.xml and AIAEHNotification.xml
- Default fault policy
- Cross-reference metadata and domain value maps

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Known Issues and Workarounds

Please see the latest *Known Issues and Workarounds (KIWA)* document for the Oracle Product Master Data Management Pre-Built Integration 11.1 on the My Oracle Support website.

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Additional Resources

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

Resource	Navigation
Pre-Built Integration Implementation Guides	Oracle Technology Network: http://www.oracle.com/technetwork/apps-tech/aia/documentation/intarch-093745.html
Foundation Pack Guides	Oracle Technology Network: http://www.oracle.com/technetwork/apps-tech/aia/documentation/intarch-093745.html
Installation and Upgrade Guide	Oracle Technology Network: http://www.oracle.com/technetwork/apps-tech/aia/documentation/intarch-093745.html
Training	http://education.oracle.com/web_prod-plq-dad/plsql/show_desc.redirect?redir_type=3

Visit the My Oracle Support 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.

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