Oracle® Retail Integration Bus

Release Notes
Release 13.0

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ORACLE

Oracle® Retail Integration Bus Release Notes, Release 13.0

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Value-Added Reseller (VAR) Language

(i) the software component known as **ACUMATE** developed and licensed by Lucent Technologies Inc. of Murray Hill, New Jersey, to Oracle and imbedded in the Oracle Retail Predictive Application Server – Enterprise Engine, Oracle Retail Category Management, Oracle Retail Item Planning, Oracle Retail Merchandise Financial Planning, Oracle Retail Advanced Inventory Planning and Oracle Retail Demand Forecasting applications.

(ii) the **MicroStrategy** Components developed and licensed by MicroStrategy Services Corporation (MicroStrategy) of McLean, Virginia to Oracle and imbedded in the MicroStrategy for Oracle Retail Data Warehouse and MicroStrategy for Oracle Retail Planning & Optimization applications.

(iii) the **SeeBeyond** component developed and licensed by Sun MicroSystems, Inc. (Sun) of Santa Clara, California, to Oracle and imbedded in the Oracle Retail Integration Bus application.

(iv) the **Wavelink** component developed and licensed by Wavelink Corporation (Wavelink) of Kirkland, Washington, to Oracle and imbedded in Oracle Retail Store Inventory Management.

(v) the software component known as **Crystal Enterprise Professional and/or Crystal Reports Professional** licensed by Business Objects Software Limited ("Business Objects") and imbedded in Oracle Retail Store Inventory Management.

(vi) the software component known as **Access Via™** licensed by Access Via of Seattle, Washington, and imbedded in Oracle Retail Signs and Oracle Retail Labels and Tags.

(vii) the software component known as **Adobe Flex™** licensed by Adobe Systems Incorporated of San Jose, California, and imbedded in Oracle Retail Promotion Planning & Optimization application.

(viii) the software component known as **Style Report™** developed and licensed by InetSoft Technology Corp. of Piscataway, New Jersey, to Oracle and imbedded in the Oracle Retail Value Chain Collaboration application.

(ix) the software component known as **WebLogic™** developed and licensed by BEA Systems, Inc. of San Jose, California, to Oracle and imbedded in the Oracle Retail Value Chain Collaboration application.

(x) the software component known as **DataBeacon™** developed and licensed by Cognos Incorporated of Ottawa, Ontario, Canada, to Oracle and imbedded in the Oracle Retail Value Chain Collaboration application.

Preface

A Release Notes document can include some or all of the following sections, depending upon the release:

- Overview of the release
- Functional, technical, integration, and performance enhancements
- Assumptions
- Fixed defects
- Known issues

Audience

Release Notes are a critical communication link between Oracle Retail and its retailer clients. There are four general audiences for whom a Release Notes document is written:

- Retail clients who want to understand the contents of this release
- Staff who have the overall responsibility for implementing Oracle Retail Integration Bus in their enterprise
- Business analysts who want high-level functional information about this release
- System analysts and system operation personnel who want high-level functional and technical content related to this release

Related Documents

For more information, see the following documents in the Oracle Retail Integration Bus Release 13.0 documentation set:

- Oracle Retail Integration Bus Data Model
- Oracle Retail Integration Bus Hospital Administration Online Help
- Oracle Retail Integration Bus Hospital Administration User Guide
- Oracle Retail Integration Bus Implementation Guide
- Oracle Retail Integration Bus Installation Guide
- Oracle Retail Integration Bus Integration Guide
- Oracle Retail Integration Bus Operations Guide

Customer Support

https://metalink.oracle.com

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Review Patch Documentation

For a base release (".0" release, such as 12.0), Oracle Retail strongly recommends that you read all patch documentation before you begin installation procedures. Patch documentation can contain critical information related to the base release, based on new information and code changes that have been made since the base release.

Oracle Retail Documentation on the Oracle Technology Network

In addition to being packaged with each product release (on the base or patch level), all Oracle Retail documentation is available on the following Web site:

http://www.oracle.com/technology/documentation/oracle_retail.html

Documentation should be available on this Web site within a month after a product release. Note that documentation is always available with the packaged code on the release date.

Conventions

Navigate: This is a navigate statement. It tells you how to get to the start of the procedure and ends with a screen shot of the starting point and the statement "the Window Name window opens."

> **Note:** This is a note. It is used to call out information that is important, but not necessarily part of the procedure.

```
This is a code sample
    It is used to display examples of code
```

A hyperlink appears like this.

Release Notes

Overview

This release of Oracle Retail Integration Bus (RIB) includes many changes in architecture, the technology stack, and deployment. There are several technical and operational improvements. Major highlights of this release are as follows:

- The proprietary Sun SeeBeyond components have been replaced with an open, standards-based platform that leverages Java Platform, Enterprise Edition standard components. The eGate server has been replaced with Oracle Application Server (OAS). Stateless session beans and message-driven beans replace eWays (eGate adapters).
- The Java Message Service (JMS) provider is Oracle Enterprise Messaging Service (OEMS) with Oracle Streams Advanced Queuing (AQ). This service replaces the SeeBeyond JMS.
- All message payloads are now fully standards-compliant and XSD-based
- The RIB kernel code is separated from the functional payloads. In other words, the functional changes do not affect the RIB kernel code.
- This release includes tools to aid and simplify installation, configuration, maintenance, deployment, and testing, including integration with the Oracle Retail Installer user interface.
- The Product Adapter Kits (PAKs) are built and deployed based on enterprise deployment of the Oracle Retail applications.
- The documentation has been revised and written from an implementer's perspective.

These release features are described later in this document.

Hardware and Software Requirements

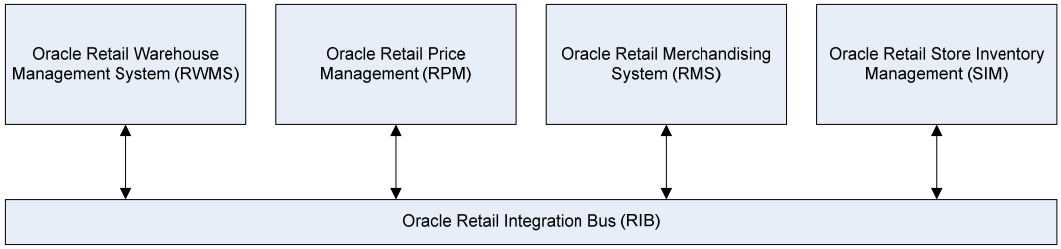
See the *Oracle Retail Integration Bus Installation Guide* for critical information about the following:

- Hardware and software requirements
- Oracle Retail application software compatibility information

Overview of Changes Since the RIB 12 Release

The RIB 13.0 release includes numerous functional and technical changes. The following Oracle Retail applications participate in enterprise functional integration using RIB:

- Oracle Retail Merchandising System (RMS)
- Oracle Retail Store Inventory Management (SIM)
- Oracle Retail Price Management (RPM)
- Oracle Retail Warehouse Management System (RWMS)



Oracle Retail Enterprise Applications and RIB

Functional Enhancements

The following are some of the major functional changes for the RIB 13.0 release:

- Multiple sets of books

  RIB changes support the multiple sets of books functionality added to Oracle Retail applications. Customers may need multiple sets of books because they use multiple currencies, or because a company contains separate legal entities. RIB implemented this functionality to support the integration of Oracle Retail applications. The message families affected are:

  – Vendor
  – General ledger chart of accounts

- Subscribing interface for the SIM to merchandise hierarchy

  A new subscriber for the merchandise hierarchy is added to the SIM PAK, so that SIM can subscribe directly to the events related to the merchandise hierarchy in RMS. Previously these changes were available to SIM only through items, and SIM had to wait for the ttem events to obtain the merchandise hierarchy changes.

- Wholesale and franchise functionality

  There are RIB changes to the integration points that support wholesale and franchise functionality for the enterprise. The message families affected are:

  – Stores
  – Transfers

- RPM subscribers removed from RIB PAK

  Because the integration between RPM and RMS has changed, RPM does not need to subscribe for these message families:

  – Item location
  – Items
  – Merchandise hierarchy
  – Stores
  – Warehouse

Technical Enhancements

The numerous technical changes for this release are described briefly in the following topics. For more details, see RIB documentation, particularly the *Oracle Retail Integration Bus Implementation Guide* and *Oracle Retail Integration Bus Operations Guide*.

Core Functionality

The following changes affect core functionality:

- Parallel Logical Channels

  RIB provides out-of-the-box support for parallel channels to boost the throughput within a family. The RIB Application Builder does the needed work, and code changes are not needed to configure the application for parallel logical channels. This simplifies multi-channel configurations significantly and reduces development effort.

- Auditing

  Message auditing can be turned on easily to retain messages. Messages can be captured or recovered and replayed when diagnosing and troubleshooting the application.

- Separation of functional payloads and infrastructure (kernel) components

  The infrastructure (kernel) code is separated from functional processing. Any changes in functional payloads require a release of functional payloads only, making it easy to customize payloads. This ensures that the RIB kernel code is stable and immune to functional changes.

- PubTrans

  In earlier releases, the PubTrans jar file contained the code to translate Oracle Objects into XML. The PubTrans file has been replaced by dynamic conversion from Oracle Objects to XML. This further simplifies customization of payloads without changes to code that converts Oracle Objects to XML.

- JMS Provider

  Additional JMS providers can be added with low implementation cost. The JMS provider for RIB can be swapped for another standard JMS implementation by changing the configuration.

- Rib-tafr

  All the TAFRs are now packaged as a standalone and deployable application. Rib-tafr has its own error hospital to manage the messages that cannot be consumed by TAFRs.

Server Components and Environments

The following changes affect server components and server environments:

- The proprietary Sun Microsystems SeeBeyond technology has been replaced by standards-based infrastructure. RIB is now deployed on Oracle Application Server instead of eGate Server. All the adapters (publishers, subscribers, and hospital retriers [eWays]) are replaced by standard Java Platform, Enterprise Edition components such as stateless session beans and message-driven beans.
- RIB is built on a fully distributed standards-based architecture that allows flexible deployment configuration with Oracle Fusion Middleware.

- RIB supports Java 5. The application takes advantage of live thread and memory monitoring capability with standard tools like JConsole and out-of-the-box improved Java Runtime Environment performance.
- JMS Provider: This release uses Oracle Enterprise Messaging Service (Streams AQ), which replaces the SeeBeyond JMS provider.
- RIB uses the Java Persistence API (JPA)/Enterprise JavaBeans (EJB) 3.0 standard persistence model. This has replaced the Hibernate persistence model from earlier releases. RIB uses Oracle TopLink for persistence-related functionality.
- RIB fully supports databases configured for Oracle Real Application Clusters (RAC).

Management and Administration

The following changes affect RIB management and administration:

- To assist management operations, the RIB administration interface is provided. You can use this interface to start, stop, and monitor the RIB adapters such as publishers, subscribers, TAFRs, and hospital retriers. You can also use the administration interface to change logging levels at individual adapter levels.
- There are several improvements managing the environments using Java Management Extensions (JMX). For example, adapter states can be controlled by the JMX controller. Any standard third-party JMX controller can be used to instrument the environment.
- There is a command-line JMX client to support instrumentation of RIB components through scripts and through JMX.

Installation, Deployment, and Configuration

The following changes affect installation, deployment, and configuration:

- RIB is installed with the standard Oracle Retail installer.
- There is a major change in the way the PAKS are built and deployed. In earlier versions, the PAKS were prebuilt. Starting with this release, the PAKs are built before the deployment, depending on the Oracle Retail enterprise applications implemented for the customer. This is handled by the AppBuilder tool.

  AppBuilder uses the configuration specified by the customer and builds the PAKs according to the configuration. AppBuilder simplifies the packaging and deployment of the applications. It dynamically determines the TAFRs needed for the deployment. Because AppBuilder builds only needed components, it keeps the deployment clean and reduces ongoing maintenance and support.

  AppBuilder has several built-in validations and version compatibility checks to catch implementation errors early. It eliminates the need to updatie rib.properties and so reduces the errors in complex configuration settings.
- The Patching and History tool ensures that patches are created in a standard manner and stored at predefined locations. This simplifies patch and fix management and reporting. It also enables customers to accurately list the patches applied and thus reduce troubleshooting effort.
- The master rib-integration-flow depicts the actual flow of messages through the publishers, TAFRs, and subscribers. This is the single source of information about the message flow through the integration, and this is used by the kernel code to funnel to the messages.

Payloads

The following changes affect message payloads:

- All payloads are fully standards-compliant and based on the XML Schema Definition (XSD). The payloads are namespace-aware and compatible with Oracle Fusion products such as Oracle Enterprise Service Bus (ESB) and Oracle Business Process Execution Language (BPEL).
- Starting with the RIB 13.0 release, the end applications framework ignores optional fields on the payloads, thus maintaining backward compatibility.
- The PL/SQL APIs for Oracle CLOB (Character Large Object) data type do not need a copy of the DTD/XSD inside the database, thus simplifying changes to the payloads.
- Oracle object names are case-sensitive. In earlier releases, Oracle objects were named using uppercase.

Test Harness

This release contains test harness tools for PL/SQL applications, as well as for Java Enterprise Edition applications. These tools mimic the API implementation to operate RIB in standalone mode (without the need for installed applications), for purposes such as verification of the RIB implementation or to troubleshoot RIB problems.

Oracle Retail Integration Bus Diagnostic and Monitoring Tool Kit (RDMT)

The following changes affect RDMT:

- RDMT supports deployments on Oracle Application Server (OAS), using local as well as remote Oracle Containers for Java EE (OC4J) instances.
- RDMT works with OEMS (Streams AQ) as a JMS provider. Further design is such that other jms providers can be supported with minimal changes.

Oracle User Interface Standards

The "Swan" user interface is a set of user interface definitions designed by Oracle. These interface definitions create a consistent interface for Oracle products and an improved user interface for application users. The Oracle Retail RIB Hospital Administration application windows have been updated to use the standard color palette and fonts.

Oracle Configuration Manager

Oracle Configuration Manager is an optional configuration data collector that provides continuous tracking of key Oracle and system configuration settings for machines on which it is installed. This tool collects configuration details for customer environments and uploads them to a repository that is viewable through the Software Configuration Manager Metalink Web site. The OCM collector is optionally installed as part of your application installation.

Using Oracle Configuration Manager can reduce a retailer's support costs by providing extra configuration information that otherwise requires a phone call or e-mail correspondence.

> **Note:** Sensitive configuration information (such as passwords) is not included in Oracle Configuration Manager collection.

The first OCM collector distribution that will be aware of the Oracle Retail applications is in Oracle development. For more information, see the *Oracle Retail Integration Bus Installation Guide*.

Documentation Enhancements

The following changes have been made in RIB documentation:

Implementation Guide

The *Oracle Retail Integration Bus Implementation Guide* is a new document that provides guidance on deployment options and recommendations. This document is designed for RIB implementers.

Documentation Available in linked HTML Format

For ease of navigation and cross-reference, RIB documentation has inter-document links.

The following documents are available in HTML format:

- Oracle Retail Integration Bus Implementation Guide
- Oracle Retail Integration Bus Installation Guide
- Oracle Retail Integration Bus Operations Guide

The HTML versions of these guides are linked. If one of these guides is open and a cross reference to another guide is selected, the referenced guide is opened in the same browser window. If the cross reference is to a specific section, the referenced guide is positioned at that section.

RIB Deliverables

The RIB release contains the infrastructure, components, and adapters to connect two or more applications together. The RIB deliverables are different from earlier releases. There are three distinct deliverables (.ZIP files) with this release of RIB:

- RIB kernel

  This file contains all code related to infrastructure and framework. The framework code takes care of publishing messages, logging, transactional integrity, interpretation of integration flow, and so on. This file does not contain any functional or domain-specific information, so the kernel is immune to functional changes. Overall, this is common infrastructure code for all application PAKs.

- RIB functional PAKs

  This file contains configuration information needed for individual applications. This configuration is used by the deployer to build the separate application PAKs. This file also contains the functional artifacts .war file with all the functional payloads.

- RIB tools

  This file contains auxiliary tools and utilities that aid administration, management, verification, troubleshooting, and diagnosis of RIB. The Diagnosis and Monitoring Tool Kit (RDMT), Hospital Administration (RIHA), PL/SQL stubs (Stubby), and others are packaged in this file.

Notable differences for the RIB deliverables are as follows:

- RIB does not deliver prepackaged PAKs Enterprise Archive (.ear) files. These files are built using the deployer tool. See the RIB Operations Guide for details.
- The kernel file is a separate deliverable that is not affected by functional changes.
- The files PlsqlApiStubs (Stubby) and JavaEeAPIStubs are test harness tar balls for stubbing the real PL/SQL and Java EE applications.

RIB Functional PAKs

RIB application PAKs adhere to the following naming conventions.

Common Names

The file name format for common names is as follows:

`RIBPak<RIB highest version>for<application name><application minimum version supported>`

For example, RIBPak1300forRMS1300 is the RIB 13.0.0 PAK for RMS 13.0.0.

The format for <*application minimum version supported*> is *X.XX.XXX*, where:

- *X* denotes major version
- *XX* denotes minor version
- *XXX* indicates patch/minor version

Packaging File Names

The file name format for packaging files is as follows:

`ribpak<RIB highest version>for<application name><application minimum version supported>_<language>_ga.tar`

For example, RibPak13.0.0ForRms13.0.0_eng_ga.tar is the RIB 13.0.0 PAK for RMS 13.0.0.

Summary of .ZIP and .TAR Files

File Name	Description / Contents
Rib_13.0.0_kernel.zip RibKernel13.0.0ForAll13.x.xApps_eng_ga.tar	Common infrastructure code for all RIB applications.
Rib_13.0.0_functional.zip	TAR files related to business domain functionality and payloads, and PAKs corresponding to the domain application such as RMS, SIM, or RWMS.
RibFuncArtifact13.0.0ForAll13.0.0Apps_eng_ga.tar	Message payloads and definitions (RIB objects) for RIB.
RibPak13.0.0ForAip13.0.0_eng_ga.tar	AIP-specific configuration files that enable connectivity of RIB 13.0.0 to AIP 13.0.0.
RibPak13.0.0ForRms13.0.0_eng_ga.tar	RMS-specific configuration files that enable connectivity of RIB 13.0.0 to RMS 13.0.0.
RibPak13.0.0ForRpm13.0.0_eng_ga.tar	RPM-specific configuration files that enable connectivity of RIB 13.0.0 to RPM 13.0.0.

File Name	Description / Contents
RibPak13.0.0ForRwms13.0.0_eng_ga.tar	RWMS-specific configuration files that enable connectivity of RIB 13.0.0 to RWMS 13.0.0.
RibPak13.0.0ForSim13.0.0_eng_ga.tar	SIM-specific configuration files that enable connectivity of RIB 13.0.0 to SIM 13.0.0.
RibPak13.0.0ForTafr13.0.0_eng_ga.tar	TAFR-specific application and configuration files that host TAFRs use in the integration flows that provide integration between different applications.
Rib_13.0.0_tools.zip	Tar balls for tools such as RDMT and RIHA.
Rdmt13.0.0ForAll13.x.xApps_eng_ga.tar	RIB Diagnostics and Monitoring Tool Kit (RDMT).
Riha13.0.0ForAll13.x.xApps_eng_ga.tar	Oracle Retail Integration Hospital Administrator (RIHA).
JavaEeApiStubs13.0.0ForAll13.x.xApps_eng_ga.tar	Stubs to mimic Java EE applications such as SIM and RPM.
PlsqlApiStubs13.0.0ForAll13.x.xApps_eng_ga.tar	Stubs to mimic PL/SQL interfaces for PL/SQL applications such as RMS and RWMS.

Issues Addressed by Hot Fix

Two hot fixes are available on Metalink that addresses some issues in this release. Refer to the following BugDB numbers for more information:

- 6953872—Functional changes for a few payloads are rolled up in this bug.
- 6957580—Kernel issues are rolled up in this bug.

Known Issues

The following are known issues in the RIB 13.0 release.

Issue Identifier	Description	Mitigation/Workaround
1797	Hospital retry adapters should go down when an error occurs in a call to the retry EJB. Currently, the timer is stopped, but the status displayed on the Admin interface indicates that the adapter is retrying for messages.	The displayed status is misleading, but it does not affect any functionality. A defect fix can be released on demand.
1608	The current RDMT configurations are not for RAC. This needs to be added to RDMT.	An actual physical node can be supplied in the JDBC URL during configuration.

Issue Identifier	Description	Mitigation/Workaround
1802	As part of the RMS Standard Edition release, there was supposed to be part of the RIB that publishes ASNs from RMS. This would happen if RMS acted as either the warehouse system or store system (not both). In this case, RMS would publish an ASN to either the external warehouse or store system. The wholesale return functionality was built based on the expectation that this interface existed, but it does not. Therefore, when RMS writes records for the ASN, nothing is sent through the RIB.	A fix for this issue is in development.
1806	Store to warehouse transfers (return to warehouse) - The ASN out message published from SIM (ASNOut Publisher, channel 1) is not being received by RWMS though the ASN in adaptor (ASNIn Publisher, channel 1). The integration flow file has no record of SIM publishing an ASNIn message.	This has been a known issue for past several releases. A fix for this issue is in development.
1803	RWMS should not subscribe to store-to-warehouse transfer messages.	A defect fix can be released on demand.
1754	The RMS PUB retry adapter is not retrying messages.	A defect fix can be released on demand.
1805	SIM inserts 0 into the Transfer Zone field instead of NULL. This requires changes to the Stores TAFR code.	A fix for this issue is in development.
294	In some cases, the subscription processing for receiving in RMS may result in bad data being successfully processed because of invalid error capturing.	A fix for this issue is in development.