ORACLE RETAIL INTEGRATION BUS

A key value proposition for Oracle Retail is our suite of software solutions is modular, allowing retailers to pick and choose the modules they need to run their business effectively and implement them much faster. The majority of our customers see extensive value in running many of our suite solutions together, so it is important that we provide powerful integration for these modules in order to obtain the most benefit out of the integrated suite. Retail Integration Bus (RIB) is our highly performant, message-based integration platform powered by Oracle Fusion middleware. The RIB is pre-configured to meet the performance and scalability demands of retail.

Overview

Oracle Retail Integration Bus (RIB) is a message-based integration platform that supports the asynchronous publish-and-subscribe enterprise integration pattern. Oracle Retail business software modules participate in an integrated business process flow where messages and documents are shared between systems. For example, as planners make inventory allocation decisions, inventory must be transferred from suppliers to the warehouse, and finally to the retail store. During this business process, inventory transfer messages must be coordinated between the merchandising system, warehouse system, and store inventory system. RIB is the integration coordinator that delivers messages between retail systems.

Publish-Subscribe Message Integration

Oracle Retail Integration Bus supports near real-time messaging with guaranteed once-only delivery, guaranteed sequential delivery within a message family regardless of errors, automatic retry, the ability to fix and retry messages, multi-threading, and support for extremely fast delivery of retail volumes. Our messaging infrastructure is tuned for high volume, high availability, and high reliability needs of retail.

Retailers can trust in the reliability provided by RIB. Business transactions moving through a retail integration infrastructure is key to the company’s health, both technical and financial. Retailers can be confident that transactions have guaranteed delivery and are received in the order in which it was sent.

- The RIB uses two-phase commit protocol for all publish-subscribe within the infrastructure, an advanced feature not commonly implemented with basic enterprise integration.
- RIB message publication and subscription is separated by functional interface transactions (e.g. Items, Orders). For each functional channel the infrastructure delivers messages in the order that they are published.
- RIB includes Error Hospital features to prevent the loss of any message with errors and to assist with troubleshooting integration issues.
- In the RIB applications can specify transactional dependencies between messages in a channel so that all dependencies are met and message publication order is preserved for each subscriber.
• RIB provides integration functionality like intelligent transformation, routing and error handling.

Transport Retail Data Volumes in Near Real-Time
Retail data volumes are some of the highest of any industry. In order for a retail business to run smoothly, these high volumes must be communicated very quickly throughout the day. If the integration communications backbone can’t support the load, business slows down.

• The RIB is a lightweight, retail-tuned integration infrastructure that outperforms all basic enterprise integration tools, while still providing robust support of message delivery.

• Out-of-the-box support for fully parallelized, independent channels for message processing.

• Multi-channel is supported with a simple configuration change.

• Leverage Oracle Objects directly to allow the database to optimize the SQL

• Ability to group like messages together into a single payload to optimize the transport of data between systems.

Powered by Oracle Database and Fusion Middleware
RIB as an asynchronous pub-sub integration tool is built on top of JMS and adds additional quality of service features to support message sequencing, automatic retry and content based routing. RIB is based on an enterprise class technical foundation:

• Oracle Database (full support for RAC database server clustering)

• Oracle Advanced Queueing, part of Oracle Database Enterprise Edition, serves as the JMS provider.

• WebLogic application server

• JMX-enablement for component management

• XSD based message payloads that are compatible with Fusion middleware tools such as BPEL, ODI and OSB.

Integrate Oracle Retail Applications Quickly
The work of application integration in general tends to add significant cost and time to a project. Having pre-built, supported integration between those applications saves those costs, allows faster time to value, and provides proven stability in production.

• RIB provides pre-built contracts within the Oracle Retail suite.

• Standard transform logic for each application’s payload is provided.

• Oracle Retail’s suite of applications standardizes the message payloads across our entire footprint.

• All contracts are available for near real-time interfaces within the suite.

Retail Reference Architecture and Integration Guide
Retail integration must be easy to implement and efficient to support long term. Along with the RIB, Oracle Retail provides comprehensive integration documentation artifacts for retail IT shops to use during implementation and support of our systems. The Retail Reference Architecture concept is a series of documentation artifacts designed to give multiple technical views to Oracle Retail products, including system integration flows, product domains and relationships, and physical deployment models. Enterprise integration architecture models are meant to be used by project teams, system integrators and enterprise architects to fully understand our integration concepts. Further, architectural models are linked with integration guides that detail very specific information about each integration message and flow provided.
by Retail Integration Bus. Together, Retail Reference Architecture artifacts and Integration Guides allow retail IT shops to get up to speed very quickly on our integration architecture to ensure a speedy and smooth implementation.

Summary

In retail, integration services require substantial quality of service, extreme performance and scalability. Near real-time messages must be supported in a highly available, maintainable, and reliable environment that can provide fast throughput of the uniquely high volume of messages that retail publishes. In addition, due to the breadth of systems in an average retail environment, implementation of integration must be streamlined. The Oracle Retail Integration Bus is an asynchronous publish-subscribe, near real-time integration architecture that is optimized for retail volumes and provides pre-fabricated adapters to Oracle Retail applications. As a retail-tune messaging infrastructure the RIB provides the availability, performance, scalability and reliability needed to support the data volume and data confidence necessary to keep retail running.

About Oracle Retail

Oracle Provides retailers with a complete, open and integrated suite of business applications, server and storage solutions that are engineered to work together to optimize every aspect of their business. 20 of the top 20 retailers worldwide – including fashion, hardlines, grocery and specialty retailers – use Oracle solutions to drive performance, deliver critical insights and fuel growth across traditional, mobile and commerce channels.

Contact Us

For more information about Oracle Retail Integration Bus, visit oracle.com/retail, email oneretailvoice_ww@oracle.com, or call +1.800.ORACLE1 to speak to an Oracle representative.