

Retek® Integration Bus 10.3



Release Notes



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Contact Method Contact Information

Internet (ROCS) www.retek.com/support
Retek's secure client Web site to update and view issues

E-mail support@rettek.com

Phone US & Canada: 1-800-61-RETEK (1-800-617-3835)
World: +1 612-587-5800
EMEA: 011 44 1223 703 444
Asia Pacific: 61 425 792 927

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When contacting Customer Support, please provide:

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

RIB 10.3 – Mandatory upgrade

Retek developed the Retek® Integration Bus™ (RIB) solution for the retail industry with a commitment to meet retail industry scalability requirements and satisfy specific scalability requests for Retek clients. To fulfill that commitment, ongoing RIB technical scalability testing and performance benchmarks have been undertaken using retail transaction data to validate that Retek integration scales efficiently, meets industry expectations, satisfies Retek client requirements, and incorporates appropriate technological refinements.

The RIB 10.3 release incorporates significant scalability refinements that are fully expressed in the RIB 10.3 Technical Architecture Guide, the associated Data Type Definitions (DTD), mapping documentation, and the Retek 10.3 Integration Guide. These guides, along with the other RIB 10.3 materials, should be reviewed in detail before beginning work with the RIB 10.3 release.

The RIB 10.3 release requires non-backward compatible, mandatory upgrades of the following products:

- SeeBeyond® eGate™ 4.5.3 with Esr54082** – The upgrade and its associated patch are required to take advantage of the scalability improvements and also patch releases of SeeBeyond to their eGate product. The eGate 4.5.3 release and Esr54082 patch includes many enhancements and fixes recommended by SeeBeyond. See the SeeBeyond eGate 4.5.3 release documentation, the Requisite Patches section below, and the ESR read me information for details. Some new configuration entries have been added in the SeeBeyond 4.5.3 release.
- Oracle® Database™ 9.2 with Oracle 9.2.0.2 patch** – Effective January 14, 2003, Retek announced its support of the Oracle RDBMS 9i release 2, also known as Oracle 9.2. All products in the Retek 10 suite requiring an Oracle database are now supported with Oracle 9.2. (Please see the Retek Oracle 9.2 Announcement dated January 14, 2003, on <http://support.retek.com> for further information.) With Oracle 9.2, Oracle and Retek recommend installation of the Oracle 9.2.0.2 patch available for Sun Solaris 8, HP-UX 11i and AIX 5L. See the Requisite Patches section below. In addition, the RIB 10.3 release has added 'RIB Objects' that use Associated Arrays of Oracle 9.2 and the release leverages Collection / Record performance efficiencies of Oracle 9.2.
- Retek® Integration Bus™ (RIB) 10.3** – Please review all highlights of the RIB 10.3 in the remaining Release Notes and User Guides. The RIB 10.3 release has a rich set of application interfaces used to communicate with Oracle Stored Procedures and applications deployed within Java 2 Platform, Enterprise Edition (J2EE) environments.

- **Retek® Merchandising System™ (RMS) 10.1.4** – This patch release includes all the enhancements of the RMS 10.1.3 release. Clients wishing to remain on the RMS upgrade path for subsequent, quarterly patches, must upgrade to RMS 10.1.4.
- **Retek® Distribution Management™ (RDM) 10.3** – RDM has upgraded all RIB based interfaces to use RIB Objects. Please see the Release Notes and User Guides for RDM 10.3.
- Although integrated on the RIB, the scalability features do not require or include upgrades to the Retek® Customer Order Management™ (RCOM) product.

In prior releases of the RIB, all adapters used the same interface structure to the database. The main facets of this design involved the use of Oracle Character Large Object Binaries (CLOBs) as the means to pass information to and from Oracle Stored Procedures. The stored procedures were responsible for encoding and parsing the message payload. In the RIB 10.3 release, most Foundational messages continue to use this format.

Within the RIB 10.3, those interfaces requiring a high-level of performance, the design has been modified so that XML creation and parsing is performed in the RIB adapter. The means to communicate data to/from the stored procedure is performed via the use of RIB Objects. These objects provide a hierarchical container to store the XML and map one-to-one with all attributes and elements found in the payload of a RIB message. There are also other changes to these interfaces that concern the number and types of the parameters.

The following high-volume interfaces were targeted with the most significant architectural changes:

- Advanced Shipping Notice (ASN) – Inbound
- Advanced Shipping Notice (ASN) – Outbound / Bill Of Lading (BOL)
- Appointments
- Inbound Work Orders
- Inventory Adjustments
- Outbound Work Orders
- Purchase Orders (PO)
- Receipts – Store and Warehouse
- Stock Orders – Allocations & Transfers
- Stock Order Status

In addition, RIB interfaces have been developed for the Retek Integrated Store Operations (ISO) applications developed on the Java 2 Platform, Enterprise Edition (J2EE) environment. For this platform, the interface to the RIB is via a Message Driven Bean (MDB) for subscribers and by using an Enterprise Java Bean (EJB) to publish messages to the RIB.

The majority of the interfaces were released with the RIB 10.2 release, however, interfaces for the ISO Store Inventory Management (SIM) solution are now available for:

- Advanced Shipping Notice (ASN) Outbound / Bill Of Lading (BOL) – RDM publication for ISO-SIM subscription
- Direct Store Delivery (DSD) Receipt – ISO-SIM publication of shipment delivery information for RMS subscription
- Differentiators – RMS publication and ISO-SIM subscription
- Items – RMS publication of sellable and non-sellable items for ISO-SIM subscription
- Locations – RMS publication of both store and warehouses to ISO-SIM
- Purchase Orders (PO) – RMS publication of physical and virtual purchase orders for ISO-SIM subscription as well as the reverse, ISO-SIM publication for RMS subscription
- Receipts – ISO-SIM publication of store receipt information to RMS and also ISO-SIM subscription of receipt information published by RDM to close purchase orders and transfers
- Return To Vendor (RTV) – ISO-SIM publication for RMS subscription
- Seed Data – RMS publication of miscellaneous status codes and Differentiator Types for ISO-SIM subscription
- Vendor – RMS publication for ISO-SIM subscription

RIB functional and technical features

Several enhancements have been made to the RIB in the 10.3 release. The RIB 10.3 release is not a patch but a full product release. Clients received the RIB 10.1 and 10.2 must upgrade to the RIB 10.3 in order to take advantage of the following product improvements and remain on the generally available upgrade path for the RMS and/or RDM.

- With the 10.0 release of the Integrated Store Operations (ISO) Store Inventory Management (SIM) release, the RIB 10.3 release introduces J2EE Enterprise Java Bean (EJB) and Message Driven Bean (MDB) components. Interfaces to non-J2EE based Retek applications continue to use Oracle-based triggers, XML and Message Family Manager (MFM) packages for publishing messages through application adapters.
- The 10.3 release uses two types of aggregation: Detailed Aggregation and RIB Message aggregation. The Detailed Aggregation is a function of changing the message format and publishing multiple details in a single payload. The RIB Message aggregations publish what used to be multiple messages as a single message. Both types of aggregation have configuration entries to limit the amount of aggregation and the resultant message size.
- For high-performance interfaces, adapters and application interfaces have been modified to use Oracle Objects to communicate between the SeeBeyond e*Way and the PL/SQL stored procedures. The API leverages the inheritance and polymorphism inherent in the Oracle Object implementation. All Oracle Objects used to pass payload information are created under the same base object, RIB_OBJECT, coined by Retek. RIB Objects are used as both input and output parameters to the GETNXT() and CONSUME() stored procedures. Each RIB_OBJECT can be hierarchical in nature and has a direct mapping to the RIB Message payload DTD.
- Message sequencing has been modified to support multi-threaded processing. There has been no change to the mechanisms used to support and ensure correct message sequencing. However, application behavior has been changed to eliminate locking of certain database rows and tables to provide a nearly linear relationship between the number of processing threads and the resultant throughput.
- Although detail triggers are still used, the processing performed consists of determining what, if anything, should be written to one or more staging tables. Typically, references to base application data are written. In the publication process, the e*Way polls for message payloads using a call to a Message Family specific GETNXT() stored procedure. GETNXT() examines the staging tables and extracts any additional information directly from the base application tables.

- PL/SQL stored procedures may use two tables to refine their behavior. The RIB_SETTINGS table describe, on a per Message Family Manager basis, the number of threads to use when publishing, the maximum number of details to publish within a create the update or delete message, and the number of minutes that a publishing application may wait for publishing “incomplete” business object create messages. The RIB_TYPE_SETTINGS table describe, by Message Family / Message Type combinations, whether information and debugging log entries should be output.
- As of the RIB 10.3 release, some publisher will return an ‘H’ status to denote a problem creating a new message for a specific business object and place the message in the Error Hospital. To alleviate ‘windows of opportunity’ for a business object to become locked by non-RIB programs or other events that make it problematic for the GETNXT() procedure to extract the requisite data, GETNXT() can direct the publishing e*Way to put identifying information into the Error Hospital. A new Published Retry e*Way will pick up this information and call a Message Family specific PUB_RETRY() stored procedure. PUB_RETRY() will be called until either the maximum retry attempts have been reached, a valid message payload is returned from the PUB_RETRY(), or PUB_RETRY() returns a status that directs the Publisher Retry adapter to stop processing the record.
- The ‘.jar’ files supplied with the RIB 10.3 release have been refactored. The retek_rib_support.jar now includes classes from rib_support_j2ee.jar. The file rib_support_j2ee.jar has been deleted. Two new jar files, retek_sbyn.jar and retek_pub_trans.jar, have been added. The former contains helper classes specific to the SeeBeyond execution environment. The latter contains classes designed to translate RIB Objects to XML strings.
- Item publishing now supports a multi-threaded implementation.
- Newly included within the message “payload” are two tags, <customData> and <customFlag> that are reserved for client specific additions to RIB message payloads.

RIB release and supplementary documentation

Detailed descriptions of RIB features have been updated for the RIB 10.3 release and are described in the:

- [Retek Integration Guide](#);
- [Retek Integration Bus Technical Architecture Guide](#);
- [Retek Integration Bus Installation Guide](#);
- [Retek Integration Bus Operations Guide](#);
- [Retek 10 Now Supported with Oracle RDBMS 9i Release 2](#) communication dated January 14, 2003

Detailed descriptions of SeeBeyond eGate features have been updated for the eGate 4.5.3 release and are described in the SeeBeyond release documentation and ESR54082 Read Me text.

Requisite patches from SeeBeyond and Oracle

Prior to RIB 10.3 installation, SeeBeyond eGate 4.5.3 and the following SeeBeyond patches must be installed. Please see the associated ESR Read Me text for detailed change descriptions and installation instructions or contact Retek Customer Support.

- **ESR54082** - This is an all inclusive patch to the SeeBeyond eGate 4.5.3 product that includes all incremental patches within a single install.

ESR54082 is posted on the Retek Fulfillment Download Center and can be found in the "SeeBeyond" section of the website.

Oracle has a one-off patch that is applied to a 9.2.0.2 Oracle home. The patch fixes an ORA-3113 error using varray select. An ORA-7445 error is also seen in the alert log. The patch is available for Sun Solaris 8, HP-UX 11i and AIX 5L. The associated Patch Number is 2474232.

Known issues with a resolution

There are no known issues related to the release of RIB 10.3.