

Retek® Service Layer™ 11.1.1

Release Notes

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- Detailed step-by-step instructions to recreate.
- Exact error message received.
- Screen shots of each step you take.

Release overview

The RSL 11.1.1 release is a patch release for RSL 11.1 to address the following changes:

Functional integration changes

- The Purchase Order (LocPO) interface was modified to allow for multiple items and locations in a single LocPO message.

RSL 11.1 was a minor release that included the following changes from RSL 11.0.2:

Functional Integration changes

- A Purchase Order (LocPO) interface for RMS 11.0.5 and Allocation 11.1

Technical Infrastructure changes

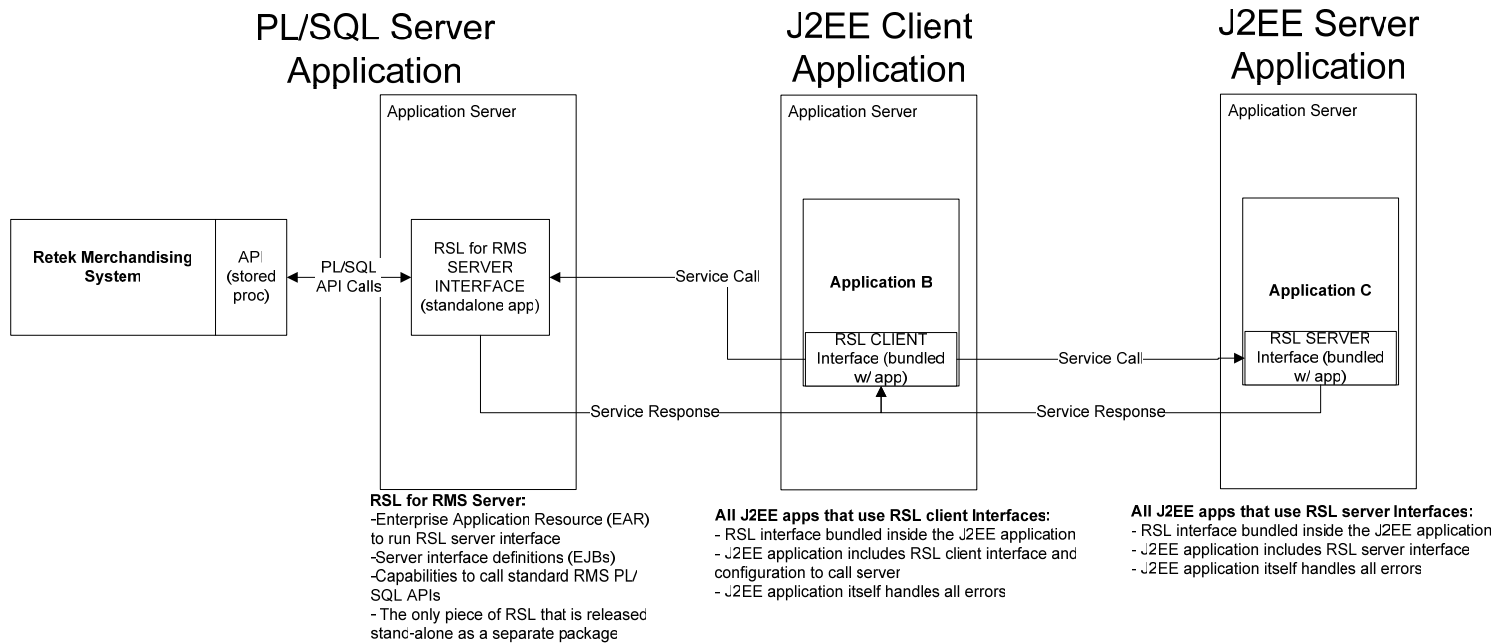
- Support for Oracle Application Server/OC4J 9.0.4 in the RSLforRMS server PAK
- Modified architecture to reduce maintenance costs of RSL interfaces (requires configuration changes and updated RSL Server code in RMS, RPM)
- Modified code to remove dependency on Hibernate
- Removal of non-compliant LGPL 3rd-party .JARs (spin.jar and jonas_timer.jar)
- Numerous bug fixes (listed below)

The details of the RSL 11 release are explained in the RSL Programmer's Guide. These guides, along with the other RSL materials, should be reviewed in their entirety before you begin to work with the RSL 11 release. Specific information regarding RSL interfaces inside each application can be found in the respective application documentation.



Note: Before you perform any installation or development work, Retek recommends that you read, follow, and understand the RSL 11 Installation Guide and the 'Known Issues' section of the RSL Release Notes. Additionally, you should extensively complete all certifications and regression/volume testing with RSL 11 versions before deployment to production environments.

Product overview



RSL handles the interface between a client application and a server application wanting to communicate in a synchronous fashion. The client application typically runs on a different computing host than the service. However, RSL allows for the service to be called internally in the same program or Java Virtual Machine as the client without the need for code modification.

RSL works within the J2EE framework. All services are contained within an interface offered by a Stateless Session Bean. To a client application, each service appears to be merely a method call.

Some Retek applications, such as RMS, are implemented in the PL/SQL language, which runs inside of the Oracle Database. These PL/SQL applications require that RSL runs as a separate instance and as its own application. However, for the non-PL/SQL applications that use RSL (for example, SIM, RPM, Allocation), the RSL packages are bundled inside of, installed with, and run with the non-PL/SQL application, so RSL essentially becomes a part of the application.

RSL provides two different models for service providers. The election of what model to use depends on what type of application the “service provider” developer is adding the RSL layer to. For applications that follow the J2EE or simple Java architecture, a J2EE model is a better fit. An Oracle PL/SQL model is better fit for applications that heavily depend on database business logic, such as Oracle Forms-based applications (RMS.)

Certification matrices

The following is a list of Retek products recently certified with recent RSL releases. Applications that have not been released but that are 'PLANNED' are noted with planned release dates.

| Retek App | Retek App Version | RSL Last Tested Date | RSL Last Tested Version | Comments |
|--|-------------------|----------------------|-------------------------|---|
| Retek Merchandising System (RMS) | 11.0.5 | 8/30/2005 | RSL 11.1.1 | LocPO interface added in RSL 11.1. Requires RMS 11.0.5 or greater to use with Allocation 11.1 |
| Retek Price Management (RPM) | 11.0.4 | 8/30/2005 | RSL 11.1 | |
| Retek Store Inventory Management (SIM) | 11.0.1 | 8/30/2005 | RSL 11.1 | |
| Retek Allocation | 11.1.1 | 8/30/2005 | RSL 11.1.1 | LocPO interface added in RSL 11.1. Requires RMS 11.0.5 or greater to use with Allocation 11.1 |

The following is a list of third-party products, platforms, or components recently certified with recent RSL releases.

| Third-Party Product, Platform, or Component | Third-Party Product, Platform, or Component Version | Last Tested Date | Last Tested Version | Comments |
|---|---|------------------|---------------------|---------------------------|
| Oracle Application Server | 9.0.4 | 6/30/2005 | RSL 11.1 | RSLforRMS standalone only |
| WebSphere Application Server | 5.1 | 6/30/2005 | RSL 11.1 | RSLforRMS standalone only |
| Solaris | 9 | 6/30/2005 | RSL 11.1 | |
| HP-UX | 11.11 | 12/30/2004 | RSL 11.0.2 | |
| AIX | 5.2 | 12/30/2004 | RSL 11.0.2 | |



Note: The above components are listed for RSLforRMS stand-alone only. Please consult each application's release notes for supported components (e.g. SIM, RPM, Allocation)

Deliverables/Package summary

The following list contains the name of deliverable packages and their content with a brief explanation of each one. Packages denoted as (internal release) are delivered to other Retek application teams to distribute with their software and are not packaged standalone; packages denoted as (external release) are standalone enterprise applications that include an installer:

rslclientpak1111forrms110_eng_ga.tar (internal release)

Provides API calls that developers integrate into their applications. Contains APIs and dependencies for calling RMS services.

- rsl.jar: Core RSL classes.
- rsl-rms-access.jar: Classes that wrap the functionality to call the remote RMS services. Application developers interact with RSL through these classes. It hides all of the communication infrastructure so “client application” developers can use them just as they would use any other simple Java class. The ‘wrapper’ interfaces were provided as the ‘old mechanism’ of wrapping the actual interfaces and are provided for new interfaces (such as LocPO) going forward.
- jndi_providers.xml: JNDI configuration file with host and port information to contact the RMS services. It needs to be configured with correct values for the environment.
- service_flavors.xml, services_rsl.xml: Configuration files used by rsl core classes to contact the desired RMS services. These are already configured and do not require environment specific changes.

rslpak1111forrms110_eng_ga.tar (external release)

Standalone enterprise application that provides services for RMS for other “client” applications to call.

- rsl-rms.ear: Enterprise application that contains implementation of RMS services.
- ojdbc14.jar: Oracle JDBC driver classes.
- *.sql: Oracle object declarations to be imported in database.
- commons-logging.properties, log4j.dtd, log4j.xml, service_flavors.xml, services_rsl.xml: Configuration files used by RSL core classes and services. No user configuration is required.
- *.jacl, *.sh, rsl-config.properties, RSLPak1110forRMS110.bom.out: These files are required to successfully install the enterprise application.

rslclientpak1111forrpm110_eng_ga.tar (internal release)

Provides API calls that developers integrate into their applications. Contains APIs and dependencies for calling RPM services.

- `rsl.jar`: Core RSL classes.
- `rsl-pricemgt-access.jar`: Classes that wrap the functionality to call the remote RPM services. Application developers interact with RSL through these classes. The ‘wrapper’ interfaces were provided as the ‘old mechanism’ of wrapping the actual interfaces and are not be provided for new interfaces (e.g. LocPO) going forward.
- `jndi_providers.xml`: JNDI configuration file with host and port information to contact the RPM services. It needs to be configured with correct values for the environment.
- `service_flavors.xml`, `services_rsl.xml`: Configuration files used by rsl core classes to contact the desired RMS services. These are already configured and do not require environment specific changes.

rslpak1110forrpm110_eng_ga.tar (internal release)

Implements RPM services for other “client” applications to call. Distributed inside RPM

- `rsl.jar`: Core RSL classes.
- `rsl-pricemgt-access.jar`: Classes that wrap the functionality to call the remote RPM services. Application developers interact with RSL through these classes. The ‘wrapper’ interfaces were provided as the ‘old mechanism’ of wrapping the actual interfaces and will not be provided for new interfaces (e.g. LocPO) going forward.
- `rsl-pricemgt-ejb.jar`: EJB implementation of RPM services. Currently not used.
- `rsl-pricemgt-server.jar`: Local RPM services. These classes forward the client calls to the business logic services implemented by the “service provider” developers. It hides all the service infrastructure so the developer can concentrate on the business logic.



Note: Source code for RSL is not provided.

RSL release and supplementary documentation

The following documents are newly available with RSL 11.1.1:

- Retek Service Layer - 11.1.1 Installation Guide
- Retek Service Layer - 11.1.1 Programmer's Guide

RSL 11.1.1 known issues with planned resolution

| Issue title | Description | Mitigation / Workaround |
|--|--|---|
| "businesslogic" flavors no longer required | For RSLforRPM service provider in the service_flavors.xml file, the "businesslogic" flavors set is no longer required. The "java" flavor specified in the "businesslogic" flavors set should be moved to the "server" flavors set if the entry doesn't already exist there. | The following line must be copied within the <flavors set="server"></flavors> section: <flavor name="java" locator="com.retek.platform.service.SimpleServiceLocator" suffix="Java" /> |
| Accessing an RSL service in WebSphere on Solaris – need to add a system property | An exception similar to the following may occur: 2005-05-12 15:51:49,203 (com.retek.platform.service.ServiceAccessor) - ERROR on making a service call to com.retek.platform.service.CommandExecutionService on method executeCommand java.lang.ClassCastException at com.sun.corba.se.internal.iiop.ShutdownUtilDelegate.isLocal(ShutdownUtilDelegate.java:39) at javax.rmi.CORBA.Util.isLocal(Util.java:262) at com.retek.platform.service.impl._CommandExecutionServiceRemoteHome_Stub.create(_CommandExecutionServiceRemoteHome_Stub.java:204) at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method) at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:39) at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25) at java.lang.reflect.Method.invoke(Method.java:324) at com.retek.platform.service.EjbServiceLocator.createBeanInstance(EjbServiceLocator.java:138) at com.retek.platform.service.EjbServiceLocator.locate(EjbServiceLocator.java:100) at com.retek.platform.service.ServiceFactory.getServicesImpl(ServiceFactory.java:270) at com.retek.platform.service.ServiceFactory.getService(ServiceFactory.java:97) at com.retek.platform.service.ServiceAccessor.getNamedService(ServiceAccessor.java:456) at com.retek.platform.service.ServiceAccessor.callRemoteMethod(ServiceAccessor.java:294) at com.retek.platform.service.ServiceAccessor.remoteTransaction(ServiceAccessor.java:485) at com.retek.platform.service.ServiceAccessorProxy.invoke(ServiceAccessorProxy.java:51) at \$Proxy0.strpocre(Unknown Source) | RSL clients running in a Sun JVM need to add the following system property to their applications: javax.rmi.CORBA.UtilClass=com.ibm.ws.orb.WSUtilDelegateImpl when accessing an RSL service running in WebSphere. The reason is that WebSphere doesn't use Sun provided IIOP implementation for remote ejb communication, but its own, which is incompatible with Sun's implementation. The system property can be set easily using the -D switch of the java executable or calling System.setProperty("javax.rmi.CORBA.UtilClass", "com.ibm.ws.orb.WSUtilDelegateImpl"); within the code. |

Changes since RSL 11.1

| Change Type / Reference # | Title | Description |
|---------------------------|---|--|
| Enhancement (MQC#33) | Performance enhancement for LocPO Service | A previous known issue that detailed performance issues with the LocPO service . In order to support multiple items and locations in a single LocPO message, loc and loc_type fields are optional in LocPODesc (HEADER), and loc and loc_type fields were added to LocPODtI (DETAIL) as optional fields. |
| Deprecation (MQC#33) | Store PO Service is now deprecated. | The Store PO Service that SIM currently uses is now deprecated and will be removed in a future release of RSL |

Changes since RSL 11.0.2

| Change Type / Reference # | Title | Description |
|---------------------------|--|---|
| BZ#1391 (Enhancement) | Changes in RSL for LocPO Service | A new LocPO interface was added to support client/server interaction between RMS and Allocation. Another change that is intrinsic to the new LocPO interface is that the actual interface is no longer wrapped on the client side. |
| BZ #1167 (Enhancement) | Support for Oracle Application Server/OC4J 9.0.4 | Support for RSL for RMS enterprise application on OC4J 9.0.4 has been added with RSL 11.1. Please note, this does not necessarily imply all applications that embed RSL internally are certified on OAS/OC4J. Please consult the relevant application's documentation for more information on OAS supportability. |
| BZ #1384 | Remove jonas_timer.jar from RSL packages | Jonas_timer.jar was removed to prevent licensing issues w/ LGPL. |
| BZ#1385 | Hibernate removal | Removed any use and references to Hibernate in RSL |
| BZ#1390 | Remove spin.jar from RSL packages | Spin.jar was removed to prevent licensing issues w/ LGPL |
| BZ#1096 | RSL XA Exceptions (DEFECT000376369) | An invalid connection was being held in a cached object. The connection is now tested for validity and re-established if it's been compromised. |
| BZ#1125 | Clean up RSL packages to remove docs and source code | RSL docs are provided separately from the code artifacts. RSL does not deliver source code |

| Change Type / Reference # | Title | Description |
|---------------------------|---|---|
| BZ#1136 | RSLforRMS doesn't install properly | A number of minor install issues with the RSL installer were fixed as part of RSL 11.1 |
| BZ#1137 | RSLforRMS throws error when retrieving local service | A NullPointerException was being thrown when RSLforRMS attempted to retrieve a local service. A local variable was not being initialized. This is fixed in RSL 11.1 |
| BZ#1141 | Services_rsl.xml missing section for platform services | A section was missing for platform services in an RSL config file (services_rsl.xml). This section has been added to the services_rsl.xml file for RSL 11.1 |
| BZ#1127 | Potential Oracle NUMBER class bug in RSL's OracleType class | Passing a number with leading 0's could corrupt the number as there was an issue with Oracle's JDBC driver and handling leading 0's. This was fixed to use a different constructor in RSL 11.1 |
| n/a | For RSL application developers: Changes in how RSL services are wrapped | The RSL client interfaces no longer have a wrapper that calls the service accessor that looks up the RSL service and calls the appropriate method. The client application is now responsible for doing the lookup of the service and calling this appropriate method. This is only for new interfaces going forward, and does not affect backwards-compatibility. LocPO is the first interface to conform to this. See the RSL programmer's guide for more details. |