

Retek® Integration Bus™ 11.1.0.2

Installation Guide

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Chapter 1 – Introduction

This manual details the installation of the Retek Integration Bus (RIB). Generally an installation of the RIB contains the following components:

1. An installation of the SeeBeyond e*Gate Integrator Product (version 5.0.4). An installation of the SeeBeyond e*Gate Integrator product involves installing the registry host and all participating host software, plus Graphical User Interface hosts for development and system monitoring. See Chapter 2 for details.
2. An installation of the RIB schema is imported into the e*Gate Integrator product. This is explained in Chapter 3.
3. Configuration points to update the database connection points, JMS queues, and CLASSPATH configuration values. Also, unused adapters are deleted. This is explained in Chapter 3.
4. An installation of the Retek Integration Error Hospital administration tool. This involves making DTD files available on the network, installing accompanying error hospital system tables, and installing the Hospital GUI components. This is covered in Chapter 5.
5. An installation of a J2EE Application Server (WebSphere Application Server) or ISO container, installation of the appropriate RIB J2EE/ISO Application package, and appropriate Application Server-specific/ISO configurations. This is covered in Chapter 6 (J2EE) and Chapter 7 (ISO)
6. An installation of the RIB Diagnostics and Monitoring tools. This is covered in the RIB document entitled “RIB Diagnostics and Monitoring Guide”.

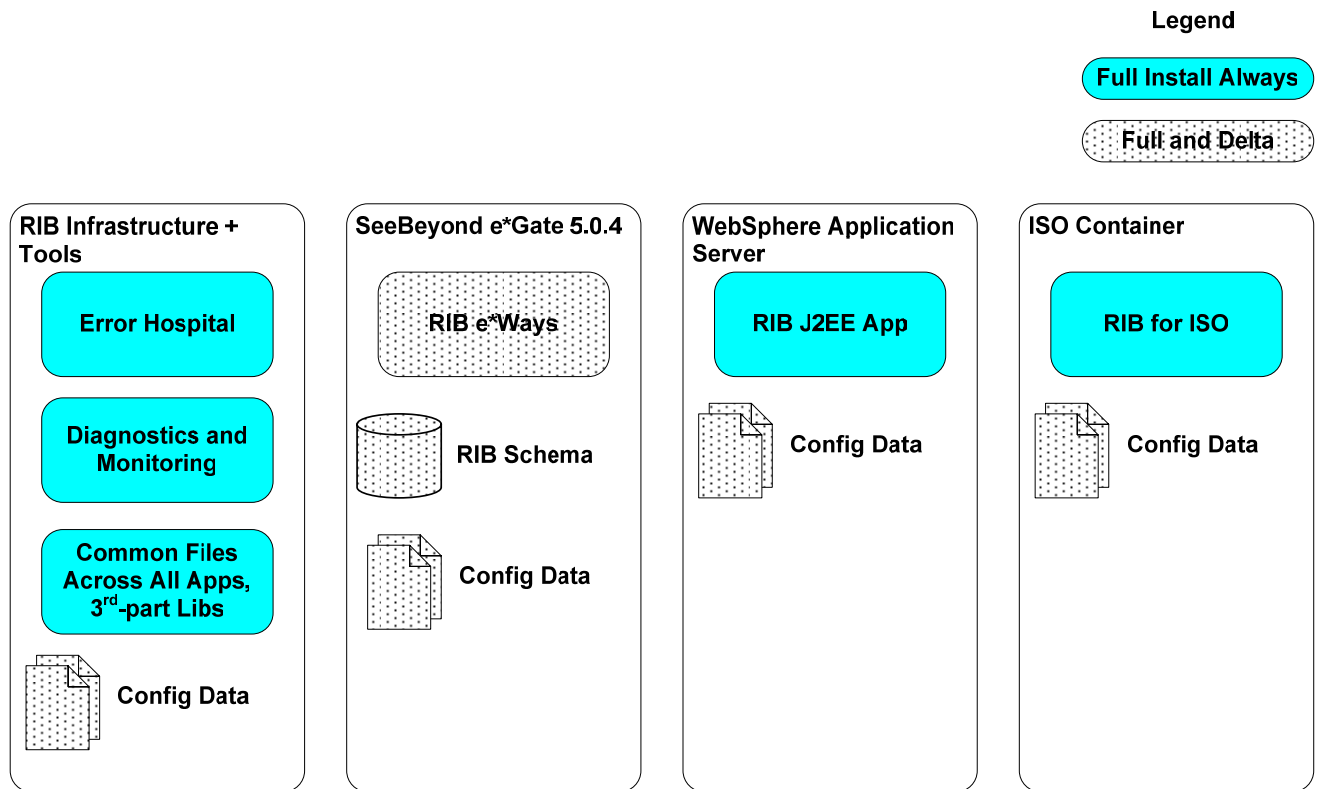


Note: It is imperative to follow all installation steps of the applications that are being connected to the RIB. Failure to follow these may result in a faulty RIB installation. See the install guides of the relevant applications for more information



Note: Follow the RIB Installation Checklist in Appendix A while performing the install in order to minimize the chance of a faulty RIB installation

Below is a high-level picture of the overall install process for both FULL and UPGRADE/DELTA installs and an overview of these two different types of installs.



Full install

A full install is typically performed when a customer has a new release of the RIB and has not had a previous install of the RIB, or if the customer is performing a mandatory upgrade and does not expect to save any previous portions of their RIB install. A full install involves a new and clean installation of the RIB and as such, includes every component in the above picture.

“Upgrading from a previous release” or delta install

An Upgrade/Delta install to assist on upgrading from the previous release of the RIB is provided as an installation option. An upgrade path is provided to upgrade a RIB 11.0.2 installation to RIB 11.1. The delta install steps are similar to a full install except certain portions of a full install will be skipped as they do not apply to a delta install. These are highlighted in this guide by the following markers:

△Delta Install Note: <A note specific to a delta/upgrade install.>

When upgrading from a previous release, the upgrade/delta install can be broken into 3 types of components:

1. **Components that require a full install** – These are denoted by the components shaded in light blue in Figure 1 above. These components are always a full install regardless if the installation is new or if it is being upgraded from a previous RIB release. Specifically, these components that are always a full install are the following:
 - a. The RIB Infrastructure and Tools
 - i) The RIB Error Hospital tool and system tables – The error hospital administration tool and any associated system tables are always a full install. Any previous changes will be over-written.
 - ii) Retek Diagnostics and Monitoring Toolkit – The diagnostics and monitoring toolkit is always a full install. Any previous changes will be over-written.
 - iii) Common Files across all apps, 3rd-Party Libraries – The RIB Commons and Infrastructure is always a full install. Any previous changes will be over-written.
 - b. RIB J2EE Applications – RIB J2EE applications are provided in a J2EE EAR file that requires a full install. Any previous changes will be over-written.
 - c. RIB for ISO Application PAK – The RIB for ISO PAK is applied to the ISO container and requires a full install. Any previous changes will be over-written.
2. **Components that require a upgrade/delta install** – These are denoted by the components shaded in black dots above in Figure 1. A RIB upgrade/delta install provides only the ‘deltas’ or changes from the previous release of the RIB in order to minimize impact to a RIB upgrade. Specifically, a RIB upgrade/delta install requires the following:
 - a. RIB e*Ways – In the RIB upgrade/delta install process, a list of e*Ways that have changed since the previous release of the RIB are provided. The customer should compare this list of changed e*Ways with the ones that have been modified on-site custom for their implementation. In this scenario, there are a few choices the customer has, as follows:
 - i) There have been no custom modifications to those e*Ways. In this case, a customer can safely import all e*Ways that have changed, overwriting the previous installation of the old e*ways.
 - ii) There have been custom modifications to those e*Ways. It is recommended that a full analysis of the differences between the e*ways be performed and any merging of those changes is the customer’s responsibility.
 - iii) The customer does not use the modified e*Ways. In this case the customer does not need to take any further action.
 - b. RIB Schema – The upgrade/delta install will preserve the existing RIB schema; however the contents of the schema will reflect the new RIB install.
 - c. Config data – Configuration data is preserved during an upgrade/delta install. The RIB documentation provides a list of changes from the previous release and a copy of the new config files so that customers may merge any changes to those config files in the newer release of the RIB with the existing/previously-installed configuration files.

- 3. Components that may not require any changes** – The following components may not require any changes:
- a. See Beyond e*Gate – When upgrading from a previous release of the RIB the existing SeeBeyond e*Gate environment can be used and is not required to be re-installed unless otherwise noted in the RIB release notes. Additionally, it is recommended to check the RIB release notes to verify that the latest SeeBeyond ESRs are applied to your environment.
 - b. WebSphere Application Server – When upgrading from a previous release of the RIB the existing WAS instance can be used and is not required to be re-installed unless otherwise noted in the RIB release notes.
 - c. ISO platform container -- When upgrading from a previous release of the RIB the existing ISO container can be used and is not required to be re-installed unless otherwise noted in the RIB release notes.

Chapter 2 – Install SeeBeyond e*Gate Integrator

The Retek Integration Bus (RIB) leverages SeeBeyond's e*Gate Integrator for supplying the needed messaging facilities for integrating applications.

The following steps need to be completed successfully to install the e*Gate product:

1. A Registry host needs to be installed, which will contain the central database of the message formats, as well as publication, subscription and transformation logic.
2. At least one Participating host needs to be installed, which implements the publishers, subscribers and transformations.
3. The required e*Gate add-ons need to be installed.
 - Batch e*Way 5.0.4 add-on
 - Oracle e*Way 5.0.3 add-on (included in this is the JDBC e*Way)
4. The GUI hosts need to be installed, which are used to monitor the operation of the system and to extend or further develop the system's capabilities.
 - e*Gate GUI 5.0.4
5. There may be a number of required e*Gate ESR (patches) to be installed. A listing of any of these will be included in the RIB Release Notes. ESRs can be found on Retek's fulfillment center (<http://fulfillment.retek.com>).



Notes:

- All three types of hosts can be present on the same physical machine. However, GUI hosts must execute on a Microsoft Windows platform.
- e*Gate requires a Java Runtime Environment (JRE) of at least version 1.3.1. However, the RIB requires a JRE of 1.4.1 or above, as does the RIB installation procedure. This is bundled with the e*Gate install.
- e*Gate Schema Manager and e*Gate Schema Designer applications use the Exceed X-windows application. If a version of Exceed exists on a GUI host, then one must install the e*Gate version into a different directory. The e*Gate version is *not* a full installation of Exceed.

The instructions for installing the SeeBeyond e*Gate Integrator system are documented in the *e*Gate Integrator Installation Guide*. This document is found on Disk 2 of the SeeBeyond installation disk set (docs\eGate_Install_Guide.pdf).



Note: The following maps the e*gate zip files available at fulfillment.retek.com to SeeBeyond's actual CD Names:

egate504hosts.zip:	SeeBeyond ICAN Suite e*Gate Integrator for SRE 5.0.4 Disc 1
egate504gui.zip:	SeeBeyond ICAN Suite e*Gate Integrator for SRE 5.0.4 Disc 2
egate402addons.zip:	SeeBeyond ICAN Suite Add-ons/Samples for SRE 5.0.4 Retek (Note: Contains Oracle and Batch add-ons only)
egate402addonsCD1.zip:	SeeBeyond ICAN Suite Add-ons Sample for SRE 5.0.4 Disc 1
egate402addonsCD2.zip:	SeeBeyond ICAN Suite Add-ons Sample for SRE 5.0.4 Disc 2
egate402addonsCD3.zip:	SeeBeyond ICAN Suite Add-ons Sample for SRE 5.0.4 Disc 3
egate402addonsCD4.zip:	SeeBeyond ICAN Suite Add-ons Sample for SRE 5.0.4 Disc 4
egate402addonsCD5.zip:	SeeBeyond ICAN Suite Add-ons Sample for SRE 5.0.4 Disc 5

Chapter 3 – RIB schema

Import

The RIB software is distributed in a single messaging schema. This schema contains all of the RIB's publishing and subscribing e*Ways (adapters) and Connection Points. It also contains a single JMS Intelligent Queue Manager.

Once the RIB schema has been imported, a system administrator must configure the connection points. Additional configuration modifications may also be needed, such as e*Way CLASSPATH. These types of changes are detailed in Chapter 3.

The final modifications to the system are due to the site-specific deployment of the system. These changes include distributed components to different hosts, creating fail-over hosts, developing additional event types, adapters, connection points and collaborations for integrating an enterprise's non-Retek applications to the RIB. It also includes creating security roles and privileges. These activities are not considered part of the installation and are not documented in this manual. For more information on these activities, see the *SeeBeyond e*Gate Users Guide*.

△Delta Install Note: The delta install will not automatically install any changed/new e*Ways and will not change any existing e*Way configurations. Since RIB 11.0.2, 4 e*Ways were modified as follows:

- ewCustOrderToStockOrderFromRIB.zip (bundled in the RIB for RWMS PAK)
- ewHospitalRetryRDM.zip (bundled in the RIB for RWMS PAK)
- ewPublisherHospitalRetryRMS.zip (bundled in the RIB for RMS PAKs)
- ewHospitalRetryISO.zip (bundled in the RIB for ISO PAK).

For RMS 10.1.x, the following e*Ways are added.

- ewInvReqToRMS.zip (bundled in the RIB for RMS 10.1.x PAK)
- ewXItemToRMS.zip (bundled in the RIB for RMS 10.1.x PAK)
- ewXItemLocToRMS.zip (bundled in the RIB for RMS 10.1.x PAK)

These e*Ways should be manually imported as needed. See the Delta Install Notes to find these e*Way locations. If the customer has modified these e*Ways, customer will need to merge the source code for these e*Ways after installation.

The following RIB configuration files have been changed since RIB 11.0.2 :

- component.xml
- hibernate.cfg.xml
- rib.properties.

There are no changes in log4j.xml and commons-logging.properties. See the Delta Install Notes in the RIB Schema Configuration section for details. We recommend that customers review the configuration after the delta install by manually comparing differences between existing/installed config files and what is shipped in RIB 11.1.

It is strongly recommended to export and backup any customized e*Ways by using SeeBeyond's Egate Schema Designer and to backup all configuration data including component.xml, hibernate.cfg.xml, log4j.xml, rib.properties, and commons-logging.properties in the \$EHOME/client/classes directory before performing the delta install.

Preliminary steps

To create and import the RIB schema, take the following preliminary steps:

1. For security reasons, create an "egate" user that will own the e*Gate files and execute the software.
2. Log onto the UNIX system where e*Gate was installed using this account.
3. Copy the RIB tar files from the RIB installation CD(s) to the location where you are planning to install the RIB software. This location will be known as the RETEK_INSTALL_DIR in the remainder of this section. The RIB tar files include ribcommon1110_eng_ga.tar, and ribobjects1110_eng_ga.tar. The RIB tar files for each Retek applications are named ribpak<RIB_version>for<APP><APP_version>_eng_ga.tar (where the application is RWMS, RMS, ISO, AIP, etc.). An example of the <RETEK_INSTALL_DIR> directory name could be called "INSTALL", located directly under the "egate" user's home directory. Future releases of the RIB should be installed into this directory, as the directories will have new version numbers in their names.

(e.g.: /files0/egate/INSTALL/)



Note: It is recommended to preserve the RETEK_INSTALL_DIR to serve as future reference for what is installed on a host system. Additionally, auxiliary RIB tools such as the Diagnostics and Monitoring tool may rely on this to poll for information.

4. Once you have copied the RIB tar file(s) to <RETEK_INSTALL_DIR>, extract each file in this directory and change the permissions on the extracted files to make them writable. If you are installing multiple applications with RIB, be sure to copy and extract the tar files of each ribpak for each application you intend to install.



Note: Extract the ribpak for rms tar file after extracting other tar files if you are installing RIB for RMS. (e.g. run this command last. tar xvf ribpak1110forrms1101_eng_ga.tar). This dependency is necessary because component.xml will be overwritten if other application PAKs are installed after the RIB PAK for RMS. As a result, it is necessary to extract the component.xml from the RMS PAK and copy that component.xml to \$EHOME/client/classes

- tar xvf 'filename'
- chmod -R 755 *

5. Change directories to <RETEK_INSTALL_DIR>/RIB<version>.

6. Edit the file `egate_profile`. Make sure the settings for the following variables are correct for your environment.
 - `EHOME` – The directory where SeeBeyond e*Gate was installed.
 - `RETEK_INSTALL_DIR` – The directory created in step 3 above.
 - `EGATE_SERVER_NAME` – The name or IP address of the server e*Gate and the RIB software are installed on.
 - `EGATE_SERVER_PORT` – The port that the e*Gate Registry Host was installed on during the SeeBeyond e*Gate Integrator install.
 - `RIB_SCHEMA` – The name of the eGate Schema into which you wish to import the RIB SeeBeyond components. This value must match the name of the Schema you create in step 3 of Create a new schema below.
 - Platform specific section (Sun Solaris, IBM AIX, HP-UX) - Uncomment the section that is applicable to your operating system and ensure that the other two sections are commented out.

△Delta Install Note: Keep the same `RIB_SCHEMA` since part of the delta install process is to update e*Ways in the existing `RIB_SCHEMA`. After the delta install, the contents of the schema will have the new RIB version even though the schema name could have a previous RIB version if you choose use RIB version name as part of the RIB schema name in a previous install.

7. Edit the “egate” user’s `.profile` located in the “egate” user’s home directory. Add an entry at the end of this file that sources the `egate_profile` modified in step 6 above.
 - `<RETEK_INSTALL_DIR>/RIB<version>/egate_profile`
(eg: `./files0/egate/INSTALL/RIB<version>/egate_profile`)
 - Ensure that `‘.:’` (dot colon) is at the beginning of the egate user’s `PATH` variable.
(eg: `PATH=.:${PATH} ; export PATH`)

Source the `.profile` after making these modifications or start a new Unix session before continuing.



Note: The e*Gate install procedure modifies your profile in a few ways, so make sure your java version is JRE 1.4.1 or above. Type “`java --version`” at the unix command line to verify before you continue.

8. If there was an earlier attempt at installing a previous version of the RIB, it must be inactivated by renaming it:

△Delta Install Note: Skip the steps b, c, and d for delta install.

- a. Make sure that all e*Ways, the control broker, and the registry are shut down. On Unix, the following command will show the active processes:

```
> ps -ef | grep stc | grep -v grep
```

If stc processes are still running, be sure to shut down all the stc processes (eg: `kill -9`).

- b. Rename the `$EHOME/server/registry/<RIB_SCHEMA>.rdp` file to `$EHOME/server/registry/<RIB_SCHEMA>.rdp.bak`.
- c. Rename the `$EHOME/server/registry/repository/<RIB_SCHEMA>` directory to `$EHOME/server/registry/repository/<RIB_SCHEMA>.bak`.

- d. The <RIB_SCHEMA>.rdb.bak file and <RIB_SCHEMA>.bak directory can be deleted at a later time once the new version has been successfully installed.
9. Start the e*Gate registry – the following command can be run manually, or the start_egate script can be run; it is located at: <RETEK_INSTALL_DIR>/RIB<version>/Retek_Sbyn

```
> let CB_PORT=$EGATE_SERVER_PORT+1  
    > $EHOME/server/bin/stcregd -ss -ln $EGATE_SERVER_NAME -bd  
$EHOME/server -pr $EGATE_SERVER_PORT -pc $CB_PORT -mc 1024 !>  
/dev/null
```

Create a new schema

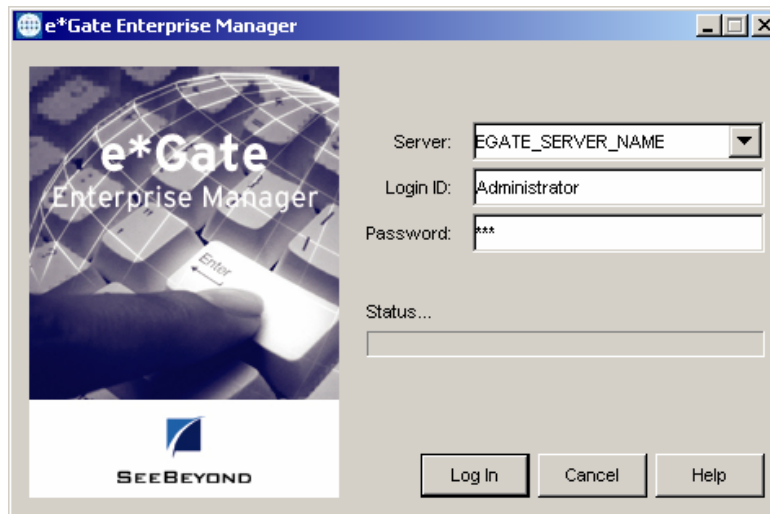
The RIB schema is imported through a two-step process. The first step involves creating a new schema. This new schema is empty and does not contain any RIB modules.

△Delta Install Note: Skip the creating a new schema for delta install.

1. Log in to the e*Gate registry using the e*Gate Schema Designer GUI tool. Log in as Administrator, using the password that was set during the installation of e*Gate Integrator.

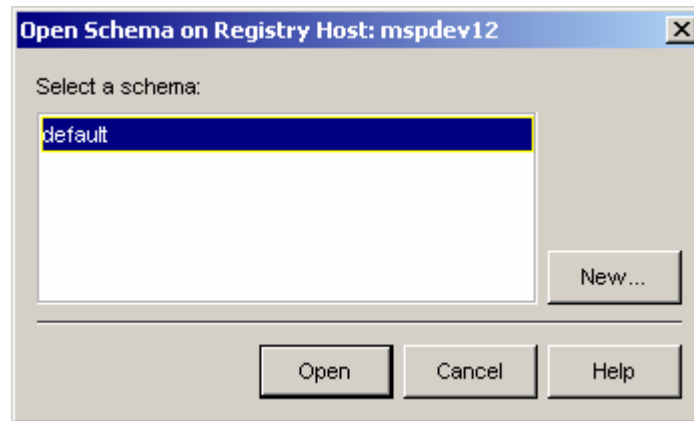


Note: For the Server: field, enter the EGATE_SERVER_NAME or IP address as specified in the egate_profile modified previously. Also, because the e*Gate Registry Host may not be running on the default port (23001), it is good practice to always specify the port along with the hostname. The format is <hostname>:<port>, (e.g. mspdev14:23001).



e*Gate Schema Designer dialog box

The Open Schema dialog box is displayed.



Open Schema dialog box

2. Click **New** to create a new schema. The New Schema dialog box is displayed.
3. In the **Enter New Schema Name** field, enter a schema name. It is recommended to name this schema RIB<POSTFIX>. A few recommendations would be to name this RIB_PROD (for production), RIB_UAT (for user acceptance test environment), RIB_SYS (for system test environment), etc. This should be named appropriately and uniquely for the intent and use of this schema. (the name entered **MUST** match the value set as RIB_SCHEMA in your egate_profile referenced above).
4. Click **Open**.

You have now successfully created an empty schema named “RIB<POSTFIX>”.

Import RIB components

The second step of the RIB Schema import process entails the actual importing of the RIB components into the newly created “RIB<POSTFIX>” base schema.

Load RIB components - automated instructions

A script to register the new RIB Schema, “RIB<POSTFIX>”, and insert all of the registry modules can be found in the following directory:

```
<RETEK_INSTALL_DIR>/RIB<version>/Migration_Scripts
```



Notes:

- If your “RIB<POSTFIX>” schema has a password for the Administrator user that is different than the default of “STC” you will need to edit the install script and replace the two occurrences of “STC” with your password (case sensitive).
- The system must be able to locate the unzip and zip utilities for the importways script to work. If not, update the PATH variable in the egate user’s .profile file.
- Additionally, a working version of perl must be installed on your machine. Be sure the PATH variable contains an entry to where this file resides.
- The DISPLAY variable must be set to the IP address of the machine that the install will run on.

- When installing on an HP-UX platform, the following lines need to be commented out in \$EHOME/client/egateclient.sh file

```
if [ "$LD_PRELOAD" = "" ]; then
```

```
LD_PRELOAD=/u00/egatexi/egate/client/JRE/1.3.1_02/lib/PA_RISC2.0/hotspot/libjvm.  
sl
```

```
else
```

```
LD_PRELOAD=/u00/egatexi/egate/client/JRE/1.3.1_02/lib/PA_RISC2.0/hotspot/libjvm.  
sl:$LD_PRELOAD
```

```
fi
```

```
export LD_PRELOAD
```



Note: Unless all of these requirements are met, the manual method to import the RIB modules will have to be used.

1. From this directory, run the “install” script (eg ./install).
 - a. The ./install script requires input parameters defining which version of the RIB you wish to install (eg ./install 1110). Executing the install script with no parameters will provide you with a listing of valid input parameters. This listing is compiled by scanning the RETEK_INSTALL_DIR for RIB<version> directories, which are created when the user extracts the tar files into the RETEK_INSTALL_DIR.
 - b. After providing “./install” with valid input parameter, the user will be prompted to verify the order of install.
 - c. “./install” will then prompt the user to create a backup of the <RIB_SCHEMA> schema. Choosing to do so will create a .zip of the schema that is currently installed before proceeding to import new modules.
 - d. Following this, “./install” will prompt the user for delta or full install. Choosing “No” will proceed to import ALL components included in the release for full install. Choosing “Yes” will proceed the delta install that only installs the RIB jar files to the existing environment without changing the existing configuration and Eways install
2. Once the script has completed, use the e*Gate Schema Designer to ensure each module was successfully loaded into the schema.
3. The “install” script creates soft links in \$EHOME for the following 6 scripts:
 - start_egate → <RETEK_INSTALL_DIR>/RIB<version>/Rib_Support/start_egate
 - stop_egate → <RETEK_INSTALL_DIR>/RIB<version>/Rib_Support/stop_egate
 - start_rib → <RETEK_INSTALL_DIR>/RIB<version>/Rib_Support/start_rib
 - Egate.txt → <RETEK_INSTALL_DIR>/RIB<version>/Egate/Eways/Egate.txt
 - start_cb → <RETEK_INSTALL_DIR>/RIB<version>/Rib_Support/start_cb
 - plist → <RETEK_INSTALL_DIR>/RIB<version>/Rib_Support/plist

4. Continue the install process: [RIB schema configuration](#).
 - **⚠Delta Install Note:** The delta install doesn't automatically install any e*Ways and doesn't change any existing e*Way configuration points. For RIB 11.0.2 there are four e*Ways that have been updated. The ewCustOrderToStockOrderFromRIB.zip and ewHospitalRetryRDM.zip eways are for RWMS; the ewPublisherHospitalRetryRMS.zip is for RMS; and the ewHospitalRetryISO.zip is for ISO. There are three e*Ways are added for RMS 10.1.x. They are ewInvReqToRMS.zip, ewXItemToRMS.zip, and ewXItemLocToRMS.zip. One may install these e*Ways by following the section "Load RIB Components – Manual Instructions". See the e*Gate Schema Designer GUI document for details on how to import these e*Ways from an import definition. After importing these e*Ways, one should review the e*Gate and e*Way configuration and reconfigure any configuration points if needed by using the e*Gate Schema Designer GUI. See the RIB Schema Configuration section for details.

The ewCustOrderToStockOrderFromRIB.zip and ewHospitalRetryRDM.zip can be found in \$RETEK_INSTALL_DIR/RIBforRDM<version>/Egate/eways-in if ribpak<RIB_version>forRWMS<version>_eng_ga.tar is installed

The ewPublisherHospitalRetryRMS.zip can be found in \$RETEK_INSTALL_DIR/RIBforRMS<version>/Egate/eways-in if ribpak<RIB_version>forRMS<version>_eng_ga.tar is installed.

The ewHospitalRetryISO.zip can be found in \$RETEK_INSTALL_DIR/RIBforISO<version>/Egate/eways-in if ribpak<RIB_version>forISO<version>_eng_ga.tar is installed.

Load RIB components - manual instructions

These instructions are provided in order to individually load modules into the schema. Skip this section if the automated process was used and completed successfully.

Each RIB module can be loaded into the <RIB_SCHEMA> schema manually, if necessary, by running the "Import Definitions from File" feature of the e*Gate Schema Designer GUI.

1. From a Windows PC, which has the e*Gate GUI installed, put the <MODULE>.zip file(s) to be loaded on an accessible drive.
2. Start the e*Gate Schema Designer.
3. Log in to the <RIB_SCHEMA> schema.
4. Select File > Import Definitions from File. The Import Wizard is displayed.
5. Click **Next**. The Step 1 page is displayed.
6. Select the "Module" radio button. Click **Next**. The Step 2 page is displayed.
7. Locate/select the <MODULE>.zip file to be imported into the <RIB_SCHEMA> schema. Click **Next**.
8. Click **Finish**. The Import Component dialog box is displayed, asking for confirmation as to which Participating Host/Control Broker pair to import into. Click **OK**.
9. Repeat the above steps for each <MODULE>.zip file that you wish to import.
10. Continue the install process: [RIB schema configuration](#).

RIB schema configuration

After the RIB schema has been imported, the schema must be configured for the site-specific environment. This chapter details the minimum changes needed for the RIB to run. It assumes that the RIB is deployed on a single host and that only a single JMS IQ Manager is needed. This deployment configuration is *not* appropriate for all RIB installations. Production environment deployments may choose to distribute different specific e*Ways and JMS queues among multiple hosts. This type of production deployment is not covered in this manual.

The following steps are required to configure the RIB schema:

1. Modify the main Participating Host and Control Broker configuration.
2. Modify the JMS IQ Manager configuration.
3. Modify Connection Point configurations.
4. Delete unused e*Ways and unused JMS queue.
5. Add/Copy e*Ways for additional components.
6. Edit the rib.properties file to correspond to the system.
7. Create/modify startup scripts.
8. Update the hibernate.cfg.xml.
9. Copy classes12.zip file to server and client classpath to utilize jdbc 9.2.0.3 driver.
10. Review component.xml. **⚠Delta Install Note: delta install only**
11. Starting the RIB components for a new/modified schema

⚠Delta Install Note: Some of these steps, after a delta 11.0.2 to 11.1.0 install, may only be to verify the configuration is already correct. It is strongly suggested that all steps be completed or reviewed so as to ensure that configuration points are correctly configured.

Step 1: Modify the main Participating Host and Control Broker configuration

The first step in the RIB messaging schema configuration is to modify the main participating host and control broker's configuration. The <RIB_SCHEMA> schema includes a single participating host and control broker that contains all of the messaging e*Ways and associated components. If these are not modified, then the configuration will attempt to resolve host names and ports as specified by the supplied/shipped configuration.

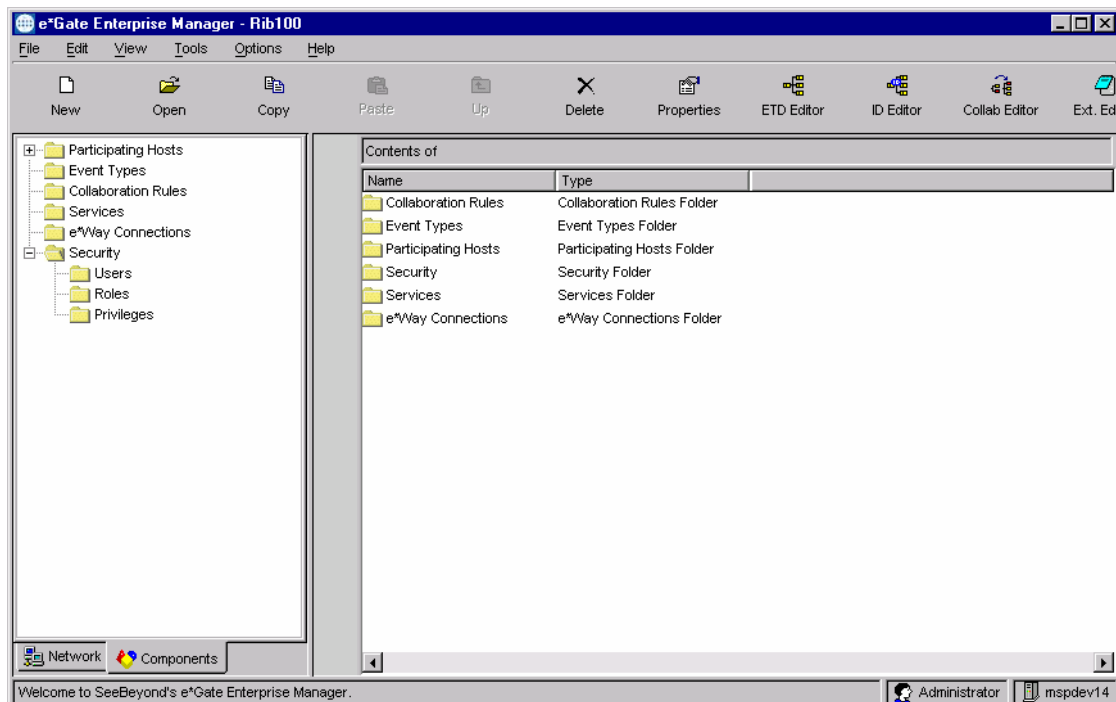
Alternatively, you can change the configuration of the participating host and its supplied control broker.

Changing these configurations is a manual process performed with the e*Gate Schema Designer application. This application must be installed on a Microsoft Windows 2000 or Microsoft Windows NT platform. Specific platform requirements are detailed in the *SeeBeyond e*Gate Integrator Installation Guide*.

These instructions modify both the names and IP address of the participating host and control broker. The name of the control broker must match any start-up scripts used.

Modify the configuration

1. Open the e*Gate Schema Designer.
2. Connect the e*Gate Schema Designer to the <RIB_SCHEMA> schema. The following window is displayed:



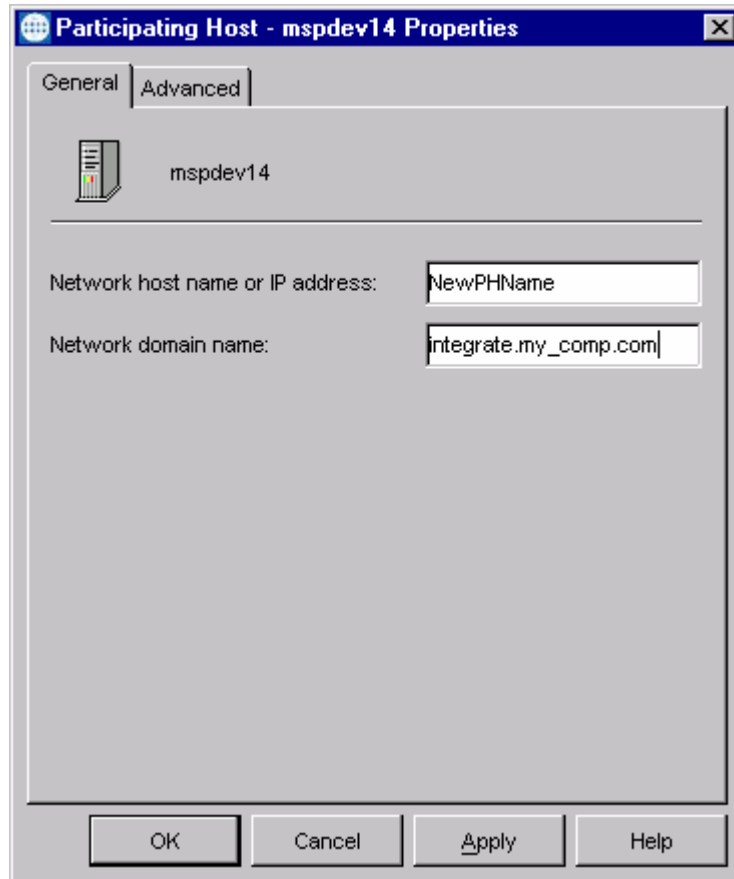
The main e*Gate Schema Designer Window

3. Right-click on the first active participating host displayed. A command list is displayed.



Note: An active participating host is one *without* the string “(inactive)” as part of its name. If there is *not* a participating host *without* the “(inactive)” string, refer to the SeeBeyond System Administrator’s Guide for instructions on how to activate the correct participating host.

4. Select **Properties....** The Participating Host Properties dialog box is displayed.



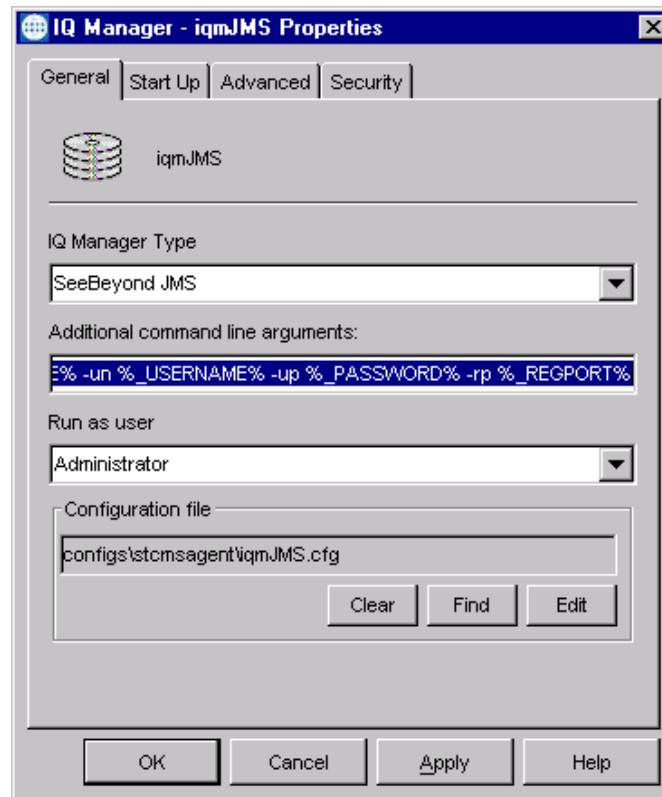
Participating Host Properties window

5. In the Network host name or IP address field, enter the e*Gate server name.
6. In the Network domain name field, enter the correct network domain name for your environment.
7. Click **OK**.

Step 2: Modify the JMS IQ Manager configuration

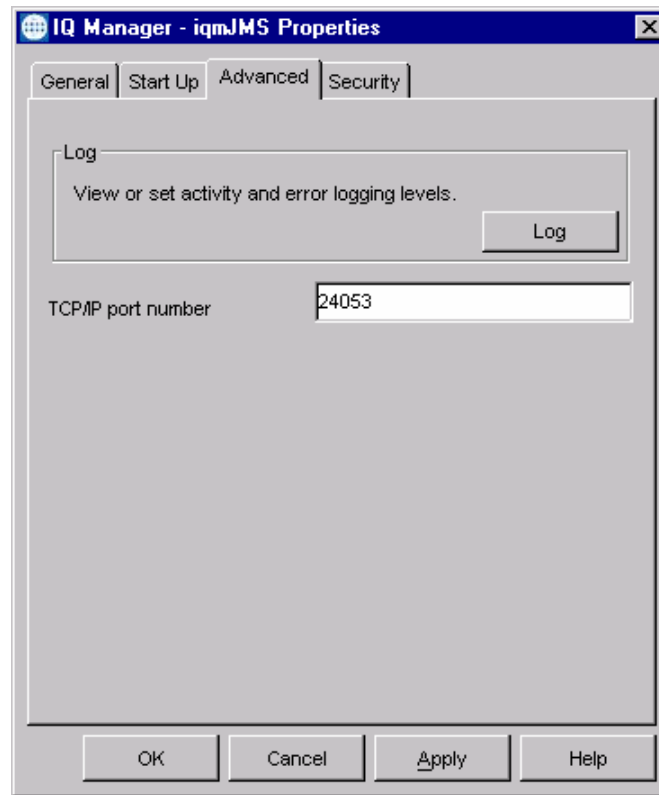
The JMS IQ Manager is initially configured to use the TCP/IP port number of **24053** for all e*Gate publishers and subscribers to connect to. If this port is used by other applications, then the JMS IQ Manager will not be able to be started. Complete this step only if port 24053 is **NOT** available.

1. In the main e*Gate Schema Designer window, right-click on the **iqmJMS** queue manager. (The iqmJMS queue manager is towards the bottom of the Components frame, below all of the e*Ways.)
2. Select **Properties....** The IQ Manager Properties dialog box is displayed.



IQ Manager Properties dialog box for iqmJMS

3. Click on the Advanced tab at the top of the window.



Advance IQ Manager Properties window

4. In the TCP/IP port number field, change the port number to an available port.
5. Click **OK**. Note the port number for the next step.

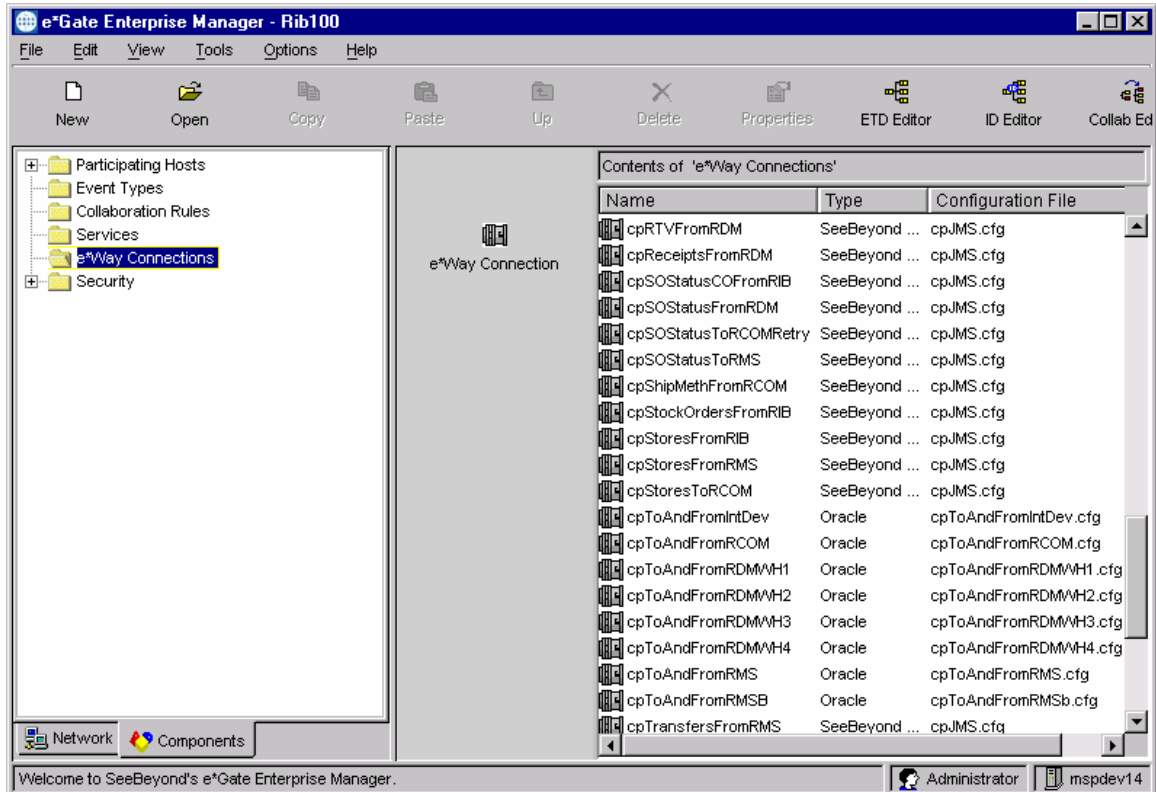


Note: If there are multiple instances of e*Gate running on a single Unix server, close attention must be paid to the registry, control broker and JMS ports. Runtime problems will be encountered if instances share the same ports.

Step 3: Modify Connection Point configurations

The next step is to modify the Connection Point configurations to reflect the JMS IQ Manager and Oracle databases used. This is performed in the e*Gate Schema Designer application.

From the main window, click on the e*Way Connections folder. The window changes to reflect the available connections.



Connection Points

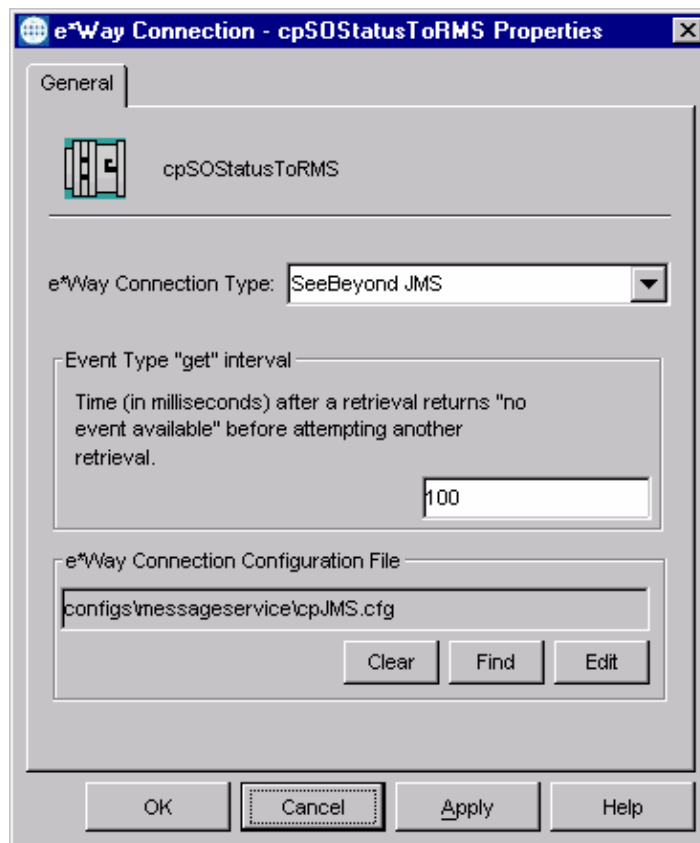
There are two types of connection points supplied with the RIB: SeeBeyond JMS and Oracle.

Change SeeBeyond JMS connection points

The SeeBeyond JMS connection points must connect to a known JMS IQ Manager. This requires knowledge of both the port number and host name. The host name is the name of the host used in step 1 “Modify the main Participating Host and Control Broker configuration”. The TCP/IP port number is initially set to 24053. Change the TCP/IP port number only if Step 3 changed the port number of the iqmJMS IQ Manager. Otherwise, leave the port number as 24053.

Ensure that the connection point connects to the correct JMS IQ Manager. Both cpJMS.cfg and cpDSDReceiptNoXA.cfg should be configured by using the following steps. Note that in the default installation, all SeeBeyond JMS Connection points except cpDSDReceiptNoXA share the same configuration file, cpJMS.cfg. Only **one** of the SeeBeyond JMS connections which use cpJMS.cfg needs to be modified to change all of the connection points that use cpJMS.cfg.

1. Locate any one of the SeeBeyond JMS connection points, right click on it and select **Properties**. The e*Way Connection Properties dialog box is displayed.



e*Way Connection Properties window

2. To change the address of the JMS IQ Manager the connection point connects to, edit the configuration file from *one* of the connection points using it. Multiple connection points may use the same connection point for sending messages to and from the JMS queue. The RIB schema initially uses only a single JMS queue for all messages.
3. Click **Edit** to change the address of the queue associated with the e*Way Connection Configuration File section of this properties window. The Connection Point configuration file edit dialog box is displayed.

Edit Settings for C:/EGATE/Client/configs/messageservice/cpJMS.cfg

File View Options Help

Goto Section: General Settings

Goto Parameter: Connection Type

Connection Type

☐ Queue ☒ Topic

Transaction Type

☐ Internal
☐ Non-Transactional
☒ XA-compliant

Delivery Mode

☐ Non-Persistent ☒ Persistent

Maximum Number of Bytes to read

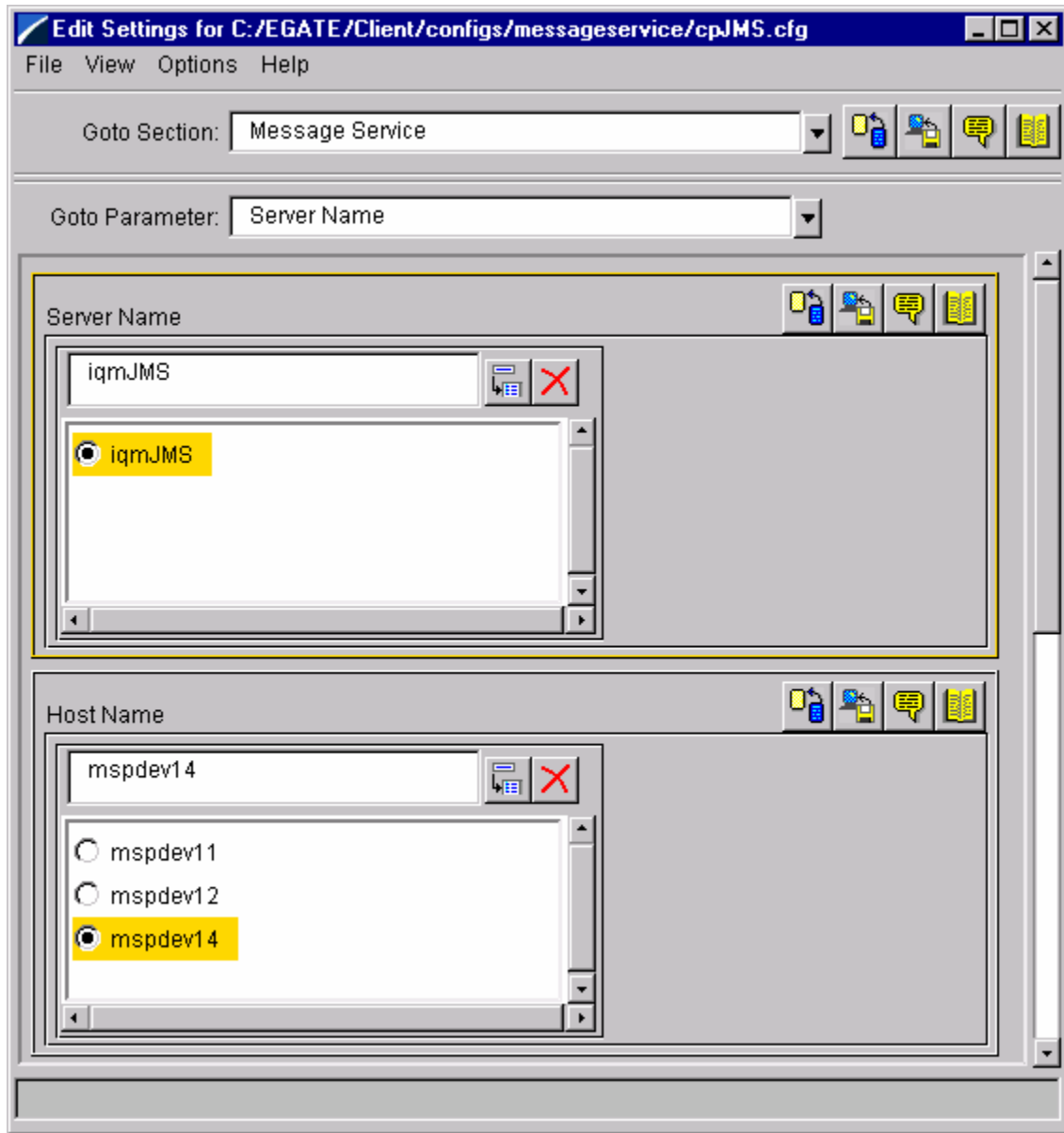
16777216

☐ 5000

"com.stc.common.collabService.SBYNJMSFactory" selected.

Connection Point Configuration Edit window (General Settings Section)

- 4 In the Goto Section field, select the **Message Service** section from the drop-down list.



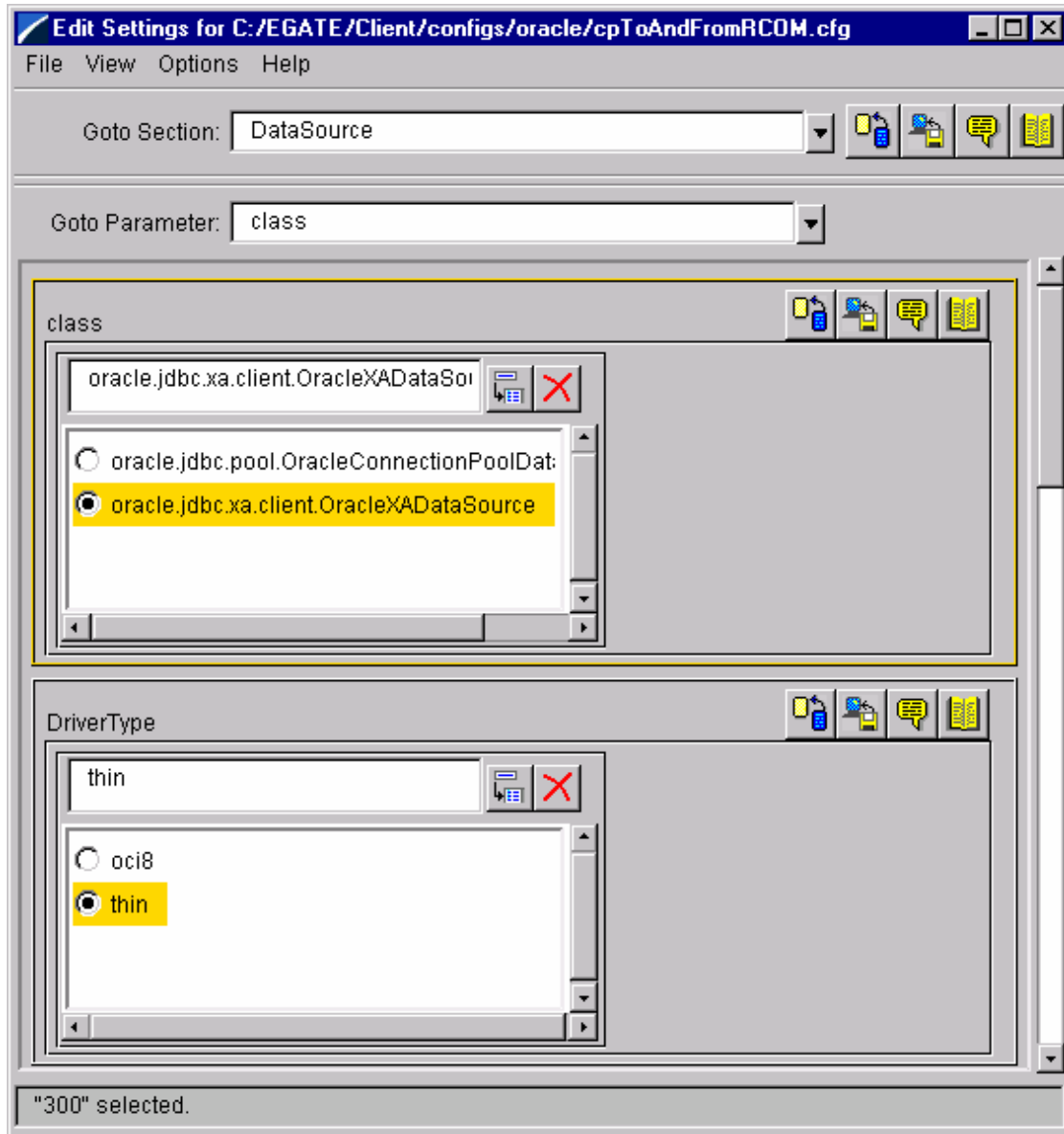
Connection Point Configuration Edit (Message Service Section)

- 5 In the Host Name field, enter the name of the host on which the JMS IQ Manager resides. If all components are running on the same host, this is the same name as specified in Step 1.
- 6 If the JMS IQ Manager's TCP/IP Port number was changed in Step 3, then scroll down to the Port Number field and enter the number used in Step 3.
- 7 Select File > Save to save the new configuration.
- 8 Select File > Promote To Runtime to make the configuration change take effect in the schema.
- 9 Select File > Close to exit the window.

Changing Oracle database connection points

All of the Oracle database connection points must be altered to reflect the database instance and the user-ID/login for each of the applications.

1. Open the Connection Point Configuration window for the Oracle Connection Points, in the same manner as was done in the previous section for the SeeBeyond JMS Connection points.



Oracle Database Configuration Edit window (DataSource Section)

2. All configuration parameters of interest are found in the **DataSource** section.
3. The table below lists which parameters should be changed.

Parameter name	Description
Class	Specifies the name of the Java class in the JDBC driver (Usually oracle.jdbc.xa.client.OracleXADataSource)
DriverType	This is the JDBC driver type (Usually thin)
ServerName	Name of server to connect to. Must have a valid Oracle listener.
PortNumber	Database connection port number. (Usually 1521.)
DatabaseName	Database System ID (SID).
user name	Login name to use
Password	Login password to use. This is stored in an encrypted form and displayed as a series of asterisks.

4. Change all Oracle database connection point settings.

You can delete the connection points used by publishers and subscribers for applications not installed. However, there is no harm in leaving these connection points as is.

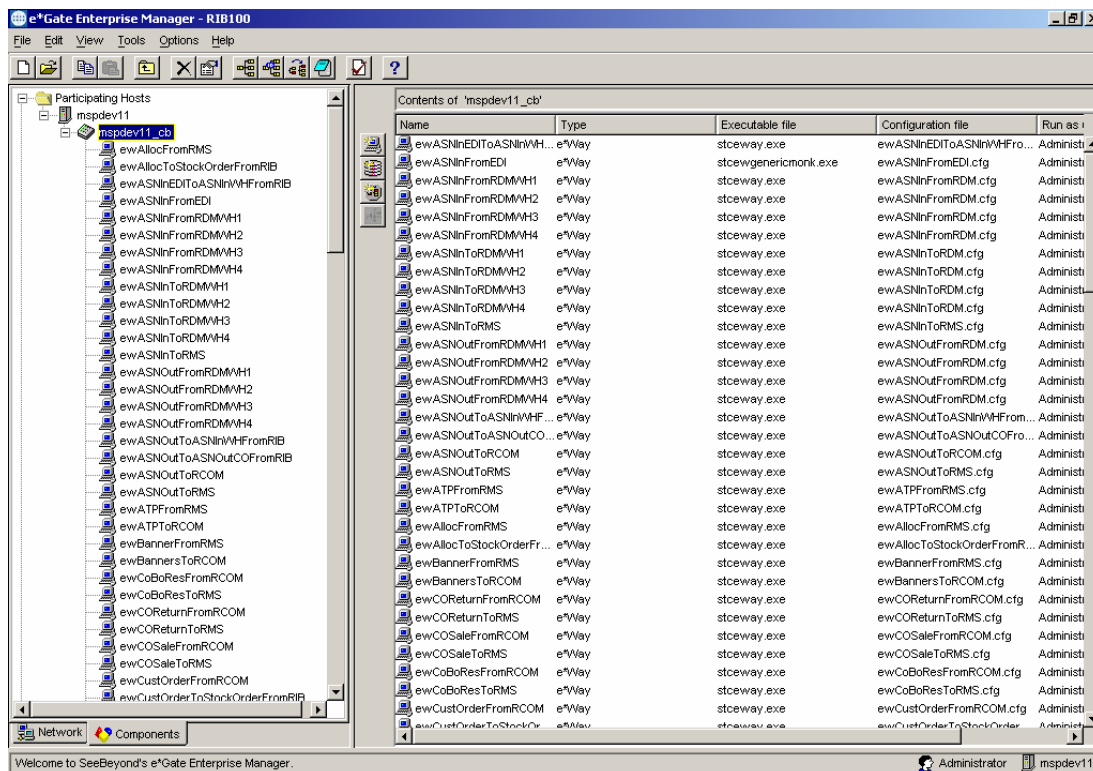


Note: Be sure to save and promote to runtime any changes made in the connection point configuration files.

Step 4: Delete unused e*Ways and unused JMS queue

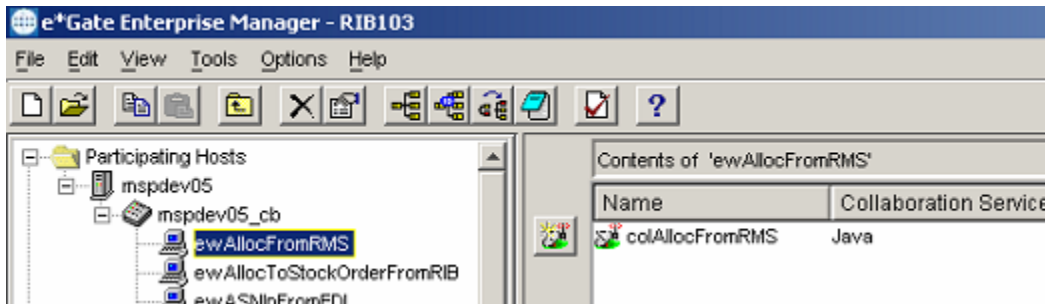
If the entire suite of RIB supported applications are not available or are not used, then delete the e*Ways associated with these applications. For messages that are directed to multiple applications or application instances, the presence of an e*Way will cause the JMS queue to store messages until all subscribers have received them. If a subscriber exists and never starts nor successfully consumes a message, then the JMS queue will never delete its copy of the message. Eventually, the JMS queue will exceed its configured message storage limits and message publication will halt.

1. From the main e*Gate Schema Designer window, click on the Components tab in the lower left corner of the screen.
2. Expand the Participating Hosts folder in the left hand side frame, if not already expanded.
3. Expand the control broker containing all of the RIB e*Ways so that the list of e*Ways is presented.



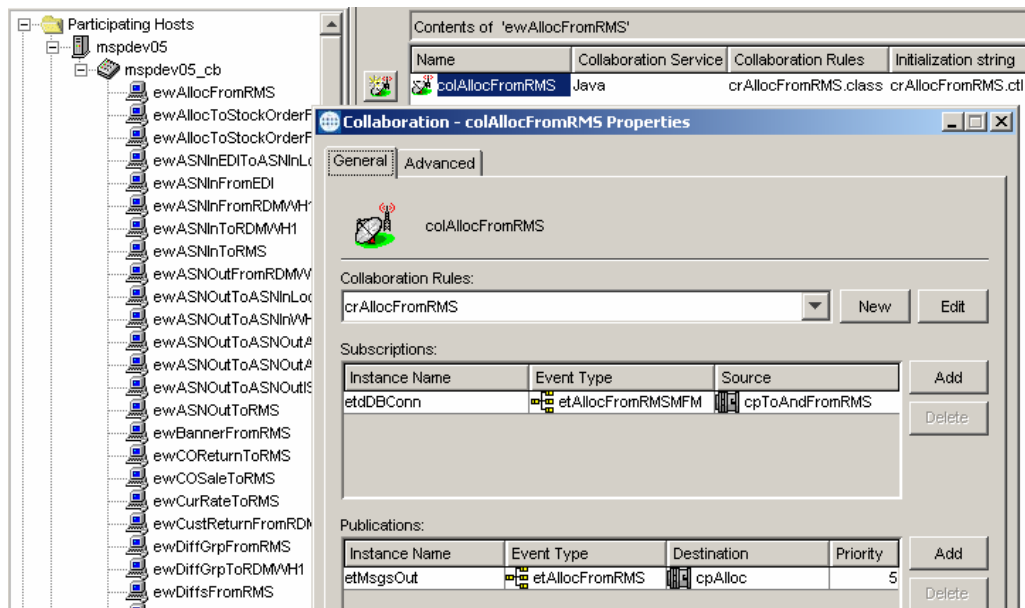
Expanded control broker

- Highlight the e*Way you wish to delete by clicking on it in the left hand frame. This will give you visibility in the right hand window to the collaboration associated with this e*Way.



Viewing a collaboration

- Open the collaboration associated with the e*Way you wish to delete by highlighting and double-clicking on it.



Collaboration properties window

- At this point you must determine if the e*Way you wish to delete is a publishing e*Way or a subscribing e*Way. You can identify a publishing e*Way by determining its source of subscription. This is identified in the Subscriptions section of the Collaboration –properties window (opened in step 5 above). This column indicates which connection settings the e*Way will use. If this connection is to an outside application (i.e. RMS, RDM, ISO, etc) this e*Way is considered a publishing e*Way. The naming convention employed by Retek makes these easily identifiable. Examples include cpToAndFromRMS, cpToAndFromRDMWH1, and cpToAndFromISO.

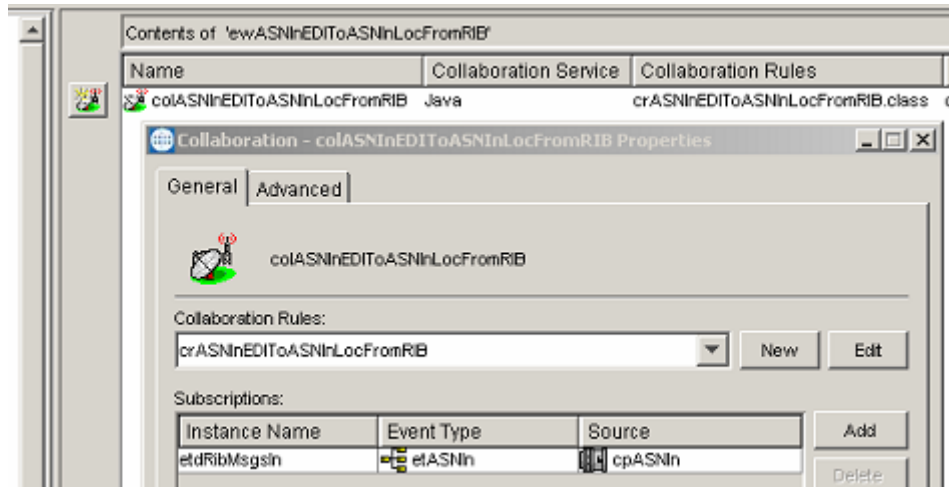
If you have determined that the e*Way you wish to delete is a publishing e*Way you may now skip ahead to step 8. If the e*Way you wish to delete is a subscribing e*Way, please proceed with the next step.

7. You have determined that your e*Way is a subscribing e*Way. Because this e*Way is a subscribing e*Way, there are additional pieces to remove that if left in a SeeBeyond schema could ultimately cause the performance issues alluded to in the opening paragraph.

When a registry is started in a SeeBeyond schema, it creates a unique subscriber for each subscribing e*Way/collaboration in that schema on the JMSQueue. SeeBeyond then ensures that each subscriber receives a message once. Until all subscribers for a particular message indicate to SeeBeyond that they have handled that message, a copy of the message is kept in the JMSQueue. Because of this “journaling” of messages, we must be sure that if we remove a subscribing e*Way from a SeeBeyond schema, we remove its subscriber as well. If we fail to do this, a copy of the message will be stored in the JMSQueue taking up memory resources.

Removing a subscriber:

- a. To remove a subscriber from a JMSQueue you must first identify the Topic which the e*Way is subscribing to. The Topic can be found by opening the collaboration properties window and looking under the Event Type column in Subscriptions section of the window. Topics will always begin with the two letters “et” (I.E. etASNIn).

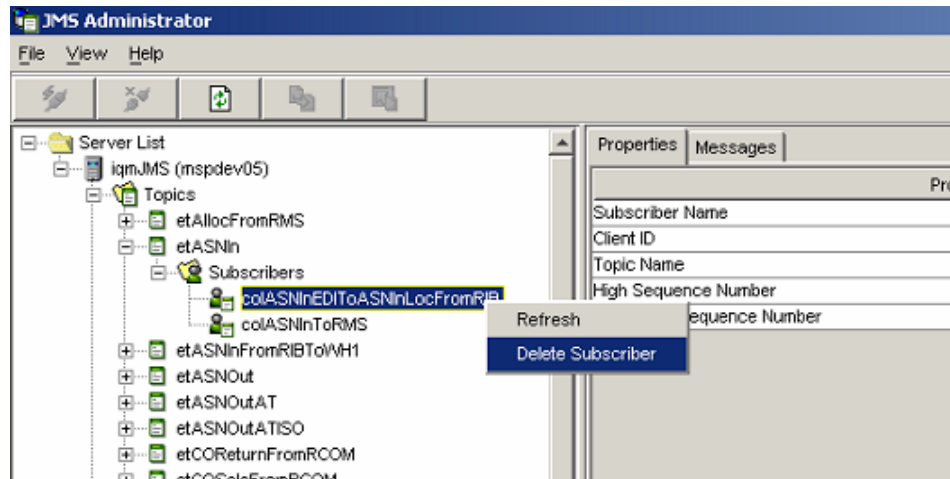


Identify the Topic in the Event Type column

- b. Be sure the JMS IQ is running. Open the JMS Administrator tool. Instructions on use of the JMS Administrator can be found in the SeeBeyond document – JMS Intelligent Queue User’s Guide – Chapter 5: Managing Events and JMS IQ Managers.
- c. From the list of topics given in the JMS Administrator, find the topic that matches the Topic you found in step A above. Once you find your topic, expand the Topic and Subscriber nodes in the GUI. Here you see a list of all collaborations that contain subscribers to this topic. Highlight the collaboration which matches the collaboration whose properties you looked at in step A.

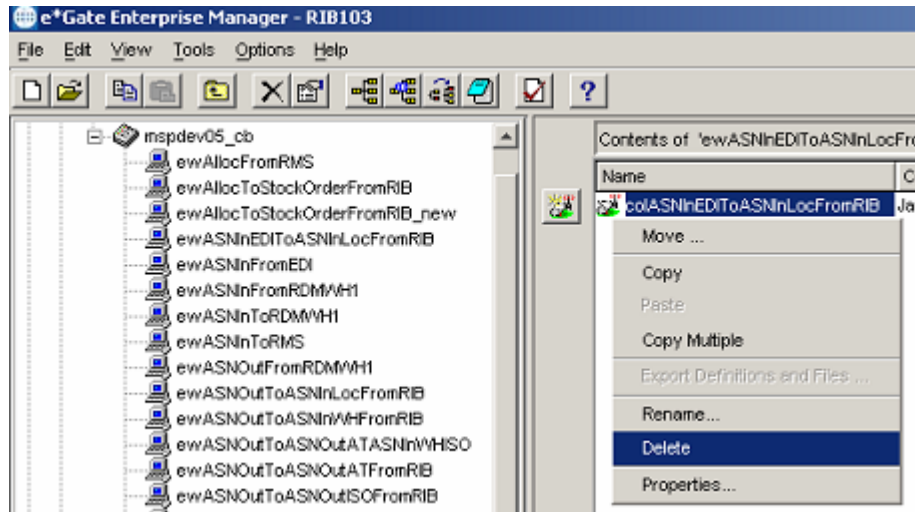
- [illegible]

- e. Right click on the appropriate subscriber/collaboration and choose “Delete Subscriber” from the dropdown menu (note: the e*Way which corresponds to this subscriber must not be running in order to delete).



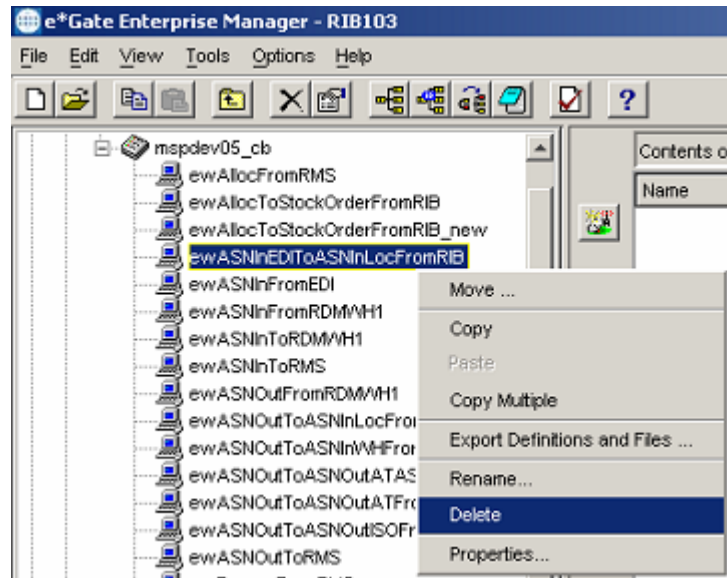
Deleting a subscriber

- f. Close the JMS Administrator and return to the e*Gate Schema Designer.
8. Right-click on the collaboration. Choose **Delete** to delete the collaboration. A confirmation dialog box is displayed.



Deleting the collaboration

- Right-click on the e*Way. Choose **Delete** to delete the e*Way. A confirmation dialog box is displayed.



Deleting the e*Way

- Log onto the Unix system using the “egate” user that owns the e*Gate files and executes the software.
- Navigate to the Unix \$EHOME directory. The Egate.txt file contains a listing of all of the e*Ways contained the RIB 11.1.0 release. Modify this file to no longer contain a reference to the e*Way you have just removed from your schema.
- Repeat this process to delete all e*Ways which are not desired.
- A default JMS server named <hostname>_iqmgr is created after the E*Gate and RIB install. One should right-click the default JMS server in the e*Gate Schema Designer and choose “delete” in the pop-up menu to delete the default JMS server. RIB uses the iqmJMS JMS server only.

Step 5: Add/Copy e*Ways for additional components

Occasionally, there will be a need to add additional e*Ways to the imported schema. Often times, it is possible to copy an existing e*Way, reconfigure the various pieces that make up the e*Way, and continue from there. If it is necessary to add/copy e*Ways, please refer to the SeeBeyond e*Gate Users Guide for the correct procedures.

Step 6: Edit the rib.properties file to correspond to the system

Next, edit the rib.properties file to reflect the site-specific mappings and properties. The RIB import process copied a rib.properties file from `<RETEK_INSTALL_DIR>/RIB<version>/Rib_Support/src` to the `$EHOME/client/classes` directory. If a previous version of this file existed, it was renamed to `rib.properties.bak`. Some of the types of properties in this file are:

- Error Hospital specifics such as the max number of attempts to try for a failing message and the delay between each attempt.
- Multi-channel indication for Purchase Orders.
- Multi-threading settings.
- Facility ID mappings. These must correspond to codes in the RMS application for the correct routing of message to RDM instances.
- Logging specific settings.
- “no event” sleep duration settings.

If the rib.properties file in `$EHOME/client/classes` is not to be used, then append the full path of the directory containing the file that will be used to the beginning of the `CLASSPATH` variable setting.

See the Retek Integration Bus Operations Guide for more information on the values for the rib.properties file.

Delta Install Note:

One needs add the following lines to the existing rib.properties in `$EHOME/client/classes`. We strongly recommend run the UNIX diff between the existing rib.properties and `<RETEK_INSTALL_DIR>/RIB<version>/Rib_Support/src/rib.properties` to verify and merge exact differences.

```
eway.ewCOSaleToRMS.no_event_sleep_millis=5000
```

```
eway.ewCOReturnToRMS.no_event_sleep_millis=5000
```

Step 7: Create/modify startup scripts

The final installation step is to create RIB startup scripts for Unix systems. These scripts start up the SeeBeyond e*Gate registry and the control broker for the <RIB_SCHEMA> Schema. Default scripts are provided for starting the registry service and the control broker in the \$EHOME directory. Refer to the “start_egate” and a “start_cb” scripts.

The commands that implement this functionality are stcregd and stccb. When executed, they run as daemons. Depending on logging and other parameters, they may log items to their stderr or stdout files. These commands are detailed further in the following manuals:

- Retek Integration Bus Operations Guide
- SeeBeyond e*Gate Integrator User’s Guide
- SeeBeyond e*Gate Integrator System Administration and Operations Guide

Step 8: Update the hibernate.cfg.xml.

In order for hibernate to validate the RIB error hospital database connection, the hibernate.cfg.xml file located in the \$EHOME/client/classes directory must have the following sections updated with valid database settings (database user, database password) for the appropriate error hospital database connection.

```
<property name="hibernate.connection.username">seebeyond2</property>

<property name="hibernate.connection.password">rib104</property>
```

Delta Install Note:

One needs remove the following line from existing hibernate.cfg.xml.

```
<property
name="hibernate.connection.url">jdbc:oracle:thin:@server:port:database</property>
```

One needs change the "show_sql" property from true to false in the existing hibernate.cfg.xml.

We strongly recommend run the UNIX diff between the existing hibernate.cfg.xml and <RETEK_INSTALL_DIR>/RIB<version>/Retek_Sbyn /conf/ hibernate.cfg.xml to verify and merge exact differences.

Step 9: Copy classes12.zip file to server and client classpath to utilize jdbc 9.2.0.3 driver.

Because pre 9.2.0.3 JDBC drivers do not handle Oracle CLOB inserts, Retek provides the 9.2.0.3 driver to overwrite SeeBeyond’s default driver.

The file exists in

<RETEK_INSTALL_DIR>/<RIB_SCHEMA>/ThirdPartyLib/oracle/classes12.zip. It should be copied to \$EHOME/server/registry/repository/default/ThirdParty/oracle/classes/

and \$EHOME/client/ThirdParty/oracle/classes/

Step 10: Configure component.xml

△Delta Install Note: This step is required for the delta install only.

The component.xml file located in the \$EHOME/client/classes directory is for mapping the Eway collaboration implementation to RIB Oracle package for each RIB family. In many cases there are not any customizations or modifications made to this file. If there have not been any customizations or modifications made to this file, one may copy the component.xml in the install directory (<RETEK_INSTALL_DIR>/RIB<version>/Rib_Support/src) directly to the existing directory (\$EHOME/client/classes) and in doing so, overwrite the existing component.xml. If component.xml has been customized or modified in any way, the customized component.xml needs to be merged with the updated component.xml in the RETEK_INSTALL_DIR. Below is a list of changes that have been added to component.xml since the RIB 11.0.2 release:

If the ribpak1110forms1102_eng_ga.tar package is installed, the entire <eway name="ewXTransferToRMS"> element should be copied in component.xml from the install directory to the file in the existing/installed directory.

If the ribpak1110forms1019_eng_ga.tar package is installed, the following changes need to be made to the existing/installed component.xml:

- copy the entire <eway name="ewItemsFromRMS"> element in component.xml from the install directory to the file in the existing/installed directory.
- change RIB_ITEMUDALOVDESC_RECC to RIB_ITEMUDALOVDESC_REC in the existing/installed component.xml.
- remove one of the duplicated <eway name="ewPendReturnToRDMWH1"> elements.
- change <messageFamily name="order"> to <messageFamily name="pendreturn"> in <eway name="ewPendReturnToRDMWH1"> element.
- change <messageFamily name="rtv"> to <messageFamily name="receiving"> in <eway name="ewReceivingFromRDMWH1"> element.
- change <signature>{call RMSSUB_CUSTRETSALECRE.CONSUME(?,?,?)}</signature> to <signature>{call RMSSUB_CORESCANCRC.CONSUME(?,?,?)}</signature> in <eway name="ewCOReturnToRMS"> element.
- change <signature>{call RMSSUB_CUSTSALECRE.CONSUME(?,?,?)}</signature> to <signature>{call RMSSUB_CORESCRC.CONSUME(?,?,?)}</signature> in <eway name="ewCOSaleToRMS"> element.
- copy the entire <eway name="ewRTVToRMS"> element in component.xml from the install directory to the file in the existing/installed directory to replace existing <eway name="ewRTVToRMS"> element.

We strongly recommend run the UNIX diff between the existing component.xml and <RETEK_INSTALL_DIR>/RIB<version>/Rib_Support/src/component.xml to verify and merge exact differences.

Step 11: Starting the RIB components for a new/modified schema

Start_rib is intended for use in starting the e*Way components of a new schema or when new e*Way components have been added to an existing schema. The RIB architecture requires that the first time an e*Way is started in a schema, it is started in a particular order (subscriber, TAFR, publisher). The start_rib script uses an input file called Egate.txt to identify an e*Way as a subscriber, a TAFR, or a publisher. Egate.txt contains a listing of all of the e*Way components packaged with the RIB. Start_rib is executed with one or several of the parameters listed within its usage. To view the start_rib usage, change Unix directories to \$EHOME and run start_rib with no parameters.

It is necessary that start_rib is run to start the e*Way components immediately after installation and configuration of the RIB components. The following command should be executed while the registry and control broker are running: start_rib JMS SUB TAFR. After these processes have successfully started (check to be certain connection points were accurately set and DB connection was successful), if the client is integrating with ISO, start the ISO services following SIM instruction. Run start_rib once more using the following command: start_rib PUB HOSP. All of the e*Way process listed in the Egate.txt file should now be running. Because all Egate.txt contains a list of all eway components, it's possible that certain eways will show a failure on startup due to the fact they are not part of this particular installation (i.e. If RWMS is not installed, then all ewXXXFromRDMWH1 eways will fail on startup). The Schema Manager can be used to verify all eways were started by using their color coding. Blue for up, red for down.

If desired, new e*Way components may be started using the start_rib command by adding the new components to the start_rib input file - Egate.txt. This file can be located in the \$EHOME directory. Unused e*Way components may also be removed from Egate.txt.

If a full install is not being preformed, and integrating with ISO, proceed to [Chapter 7 – ISO Integration](#).

Chapter 4 – Database triggers and Oracle dependencies

Database triggers

Once the RIB has been installed and configured, the publishing applications need to be told to begin to publish data. There are multiple ways to initiate the publishing process. Each Retek product's operation guide contains this information.

Oracle dependencies

In order for the RIB to function correctly, *you must install Oracle's XML Developer's Kit for PL/SQL on your database server.* This can be downloaded from Oracle Technology Network. The version of XML Developer's Kit for PL/SQL *must be dated 3/28/2002 or later* – there is a bug in prior version that will prevent the RIB from working correctly.

Verify RIB Error Hospital database tables

One feature of the RIB is the Error Hospital subsystem used to store and retry messages that have processing problems by a subscribing application. This facility allows for non-dependent messages to continue to be processed by the application until the failure has been resolved and the message successfully consumed.

These tables were created during the database portion of the RCOM, RDM, ISO, RPM, AIP, or RMS installations. The DDL to create these tables can be found on these products' installation CDs.

For Retek 10.x applications (e.g. RMS 10.x, RDM 10.x) to integrate with Retek XI applications through RIB 11.x, you need run `rib_tables_110_update.sql` and `rib_table_values_110_update.sql` scripts from `ribobjects1110_eng_ga.tar` against the Retek 10.x applications hospital databases to create `RIB_MESSAGE_HOSPITAL_REF`, `RIB_ERRORS` and `RIB_LANG` tables. We recommend user check if there are `RIB_MESSAGE_HOSPITAL_REF`, `RIB_ERRORS` and `RIB_LANG` tables installed with other RIB Error Hospital tables in the application database. If no, user should run the sql scripts above to create the tables.



Note: For more detailed information on the RIB Error Hospital, refer to the `<RETEK_INSTALL_DIR>/RIB<version>/Rib_Support/build/retex-rib-support-doc.zip/index.html` file.

For each Error Hospital, verify that the three hospital tables exist and that they have the correct columns. The three tables necessary are:

RIB_MESSAGE

```
DROP TABLE RIB_MESSAGE CASCADE CONSTRAINTS ;

CREATE TABLE RIB_MESSAGE (
    MESSAGE_NUM          NUMBER(8)          NOT NULL,
    LOCATION              VARCHAR2(60)      NOT NULL,
    FAMILY                VARCHAR2(25)      NOT NULL,
    TYPE                  VARCHAR2(30)      NOT NULL,
    ID                    VARCHAR2(255),
    RIB_MESSAGE_ID        VARCHAR2(255),
    PUBLISH_TIME          DATE,
    IN_QUEUE              VARCHAR2(1)       NOT NULL,
    MESSAGE_DATA          CLOB              NOT NULL,
    ATTEMPT_COUNT         NUMBER(4)         NOT NULL,
    MAX_ATTEMPTS          NUMBER(4)         NOT NULL,
    NEXT_ATTEMPT_TIME     DATE,
    DELETE_PENDING        VARCHAR2(1)       NOT NULL,
    TOPIC_NAME            VARCHAR2(255),
    THREAD_VALUE          NUMBER(22,8),
    JMS_QUEUE_ID          VARCHAR2(255),
    CUSTOM_FLAG           VARCHAR2(1)       DEFAULT 'F' NOT NULL,
    CUSTOM_DATA           CLOB,
    REASON_CODE           VARCHAR2(10)      NOT NULL,
    CONSTRAINT PK_RIB_MESSAGE
    PRIMARY KEY           (MESSAGE_NUM));
```



Note: The field MESSAGE_NUM in the table RIB_MESSAGE has an associated script to create the sequence. It is required to run this script – **rib_message_seq.sql**. This script can be found in the <RETEK_INSTALL_DIR>/RIBfor<APP><version>/XML_Uutilities directory.

RIB_MESSAGE_FAILURE

```
DROP TABLE RIB_MESSAGE_FAILURE CASCADE CONSTRAINTS;

CREATE TABLE RIB_MESSAGE_FAILURE (
    MESSAGE_NUM    NUMBER(8)        NOT NULL,
    SEQ_NUMBER     NUMBER(2)        NOT NULL,
    TIME           DATE              NOT NULL,
    LOCATION        VARCHAR2(60)     NOT NULL,
    DESCRIPTION     VARCHAR2(4000)   NOT NULL,
    ERROR_TYPE      VARCHAR2(2)      DEFAULT 'SY' NOT NULL,
    ERROR_CODE      VARCHAR2(25)     NULL,
    CONSTRAINT PK_RIB_MESSAGE_FAILURE
    PRIMARY KEY (MESSAGE_NUM, SEQ_NUMBER));
```

RIB_MESSAGE_ROUTING_INFO

```
DROP TABLE RIB_MESSAGE_ROUTING_INFO CASCADE CONSTRAINTS;

CREATE TABLE RIB_MESSAGE_ROUTING_INFO (
    MESSAGE_NUM    NUMBER(8)        NOT NULL,
    SEQ_NUMBER     NUMBER(2)        NOT NULL,
    NAME           VARCHAR2(25)     NOT NULL,
    VALUE          VARCHAR2(25)     NOT NULL,
    DETAIL1_NAME   VARCHAR2(25),
    DETAIL1_VALUE  VARCHAR2(300),
    DETAIL2_NAME   VARCHAR2(25),
    DETAIL2_VALUE  VARCHAR2(300),
    CONSTRAINT PK_RIB_MESSAGE_ROUTING_INFO
    PRIMARY KEY (MESSAGE_NUM, SEQ_NUMBER));
```

RIB_MESSAGE_HOSPITAL_REF

```
DROP TABLE RIB_MESSAGE_HOSPITAL_REF CASCADE CONSTRAINTS;
```

```
CREATE TABLE RIB_MESSAGE_HOSPITAL_REF (  
    MESSAGE_NUM      NUMBER(8)      NOT NULL,  
    SEQ_NUMBER        NUMBER(2)      NOT NULL,  
    HOSPITAL_REF      VARCHAR2(8)    NOT NULL,  
    LOCATION          VARCHAR2(60),  
    MESSAGE_FAMILY    VARCHAR2(25),  
    NEW_REASON_CODE   VARCHAR2(10),  
    OLD_REASON_CODE   VARCHAR2(10),  
    CONSTRAINT PK_RIB_MESSAGE_HOSPITAL_REF  
    PRIMARY KEY (MESSAGE_NUM, SEQ_NUMBER));
```



Note: If these tables need to be created outside of a Retek Application's installation, scripts called 'all_rib_tables.sql, all_rib_table_values.sql' can be found in the <RETEK_INSTALL_DIR>/<RIB_SCHEMA>/XML directory.

If your database already has these tables in place from a prior RIB installation, the rib_message table may need to be updated with new table changes.

RIB_DOCTYPES table and DTD files

The RIB_DOCTYPES table should also have been created and populated by the Retek Application installation(s) (e.g. RMS). The integration with RCOM now requires that the DTD files themselves be network accessible.

To accomplish this, all of the DTD files in <RETEK_INSTALL_DIR>/RIB<Version>/XML/DTDs/dtd.war should be deployed to a web server running at the client. Once this is done, and the URL to the DTDs is known, the value in the DOC_TYPE_URL column will need to reflect this location.

The rib_doctypes_rms.dat for RMS or rib_doctypes_rdm.dat for RDM files which are found in the <RETEK_INSTALL_DIR>/RIB<Version>/XML directory are the data files that RMS or RDM use to populate the table with DOC_TYPE_URL data by using Oracle SQL Loader with rib_doctypes_rms.ctl or rib_doctypes_rdm.ctl. The URLs can be globally replaced with the new one.



Note: If custom RMS, a custom version of this script will exist. It should be applied instead.

Chapter 5 – RIB Hospital Administration Tool installation

The RIB Hospital Administration Tool (RIHA) is a java executable/application provided to perform RIB administration functions in the Error Hospital database.

Prerequisites

1. The minimum and preferred Java Runtime Engine (JRE) version to use with RIHA is 1.4.1_07. This JRE must be installed on the workstation/PC where RIHA will be installed prior to running the configuration script.

Install RIB Administration Tool

These instructions assume RIHA will be installed in a PC running a Windows operating system. To install RIHA in a Unix environment, follow these instructions by using the proper file separator character and script extensions.

1. Copy the `riha1110_eng_ga.tar` file to the location where RIHA will be installed (e.g.: `C:\RIB_Tools`.)
2. Decompress the tar file with an archive utility (e.g.: WinZip). This will extract all RIHA files into a directory named `RIHA1110` (e.g.: `C:\RIB_Tools\RIHA1110`)
3. Go to the `RIHA1110\bin` directory and execute the `riha-config.bat` file. This script will drive the rest of the installation and configuration process:
 - a. Create a user login. RIHA provides users with access to information contained in the applications error hospital database. Users can view and modify this data and control the variables that make possible the feedback of messages into the system. Because of this, limiting the accessibility to this tool is imperative. RIHA supports the creation of user logins to guarantee that only designated users can execute this tool. The following prompts ask the user to enter the credentials to create a new user login for RIHA. More than one user can be created..

Starting RIHA configuration utility...

Create a new user login:

Enter User Id: **jd****oe**

Enter User First Name: **John**

Enter User Last Name: **Doe**

Enter password: *<password does not show>*

Verify password: *<password does not show>*

User **jd****oe** created.

Do you want to create another user? (y/n): **n**

- b. Next, the user is presented with a list of standard Retek applications to choose from and configure the database connection where the Error Hospital of each application resides. It also prompts the user for the server hosting the DTD files for the RIB messages. Once all this information is entered, the user is returned back to the Retek applications list to either configure a new connection or complete this process.

Creating hibernate configuration files...

You can access multiple Error Hospital databases by setting multiple configuration files (even for the same product).
Select [D]one when finished.

Please choose a product for configuring database information:

- 1) AIP - Retek Advanced Inventory Planning
- 2) ISO - Retek Integrated Store Operations
- 3) RCOM - Retek Customer Order Management
- 4) RMS - Retek Merchandising System
- 5) RPM - Retek Price Management
- 6) RWMS - Retek Warehouse Management System

([1], [2], [3], [4], [5], [6], [D]one): **4**

Enter database host name (e.g.: mspdev05.retek.int): **mspdev05**

Enter database port (e.g.: 1521): **1521**

Enter database instance (e.g.: DEV): **DEV**

Enter user name: **schema_owner**

Enter password: *<password does not show>*

Verify password: *<password does not show>*

Enter name of server hosting dtd files (e.g.: mspdev05.retek.int): **mspdev05**

Enter port number of server hosting dtd files (e.g.: 8080):
8080

Please choose a product for configuring database information:

- 1) AIP - Retek Advanced Inventory Planning
- 2) ISO - Retek Integrated Store Operations
- 3) RCOM - Retek Customer Order Management
- 4) RMS - Retek Merchandising System
- 5) RPM - Retek Price Management
- 6) RWMS - Retek Warehouse Management System

([1], [2], [3], [4], [5], [6], [D]one): **d**

- c. Finally the user is prompted to enter the full path for the web browser to use when displaying the online help.

```
Please enter the full path for your default browser.  
This will be used when displaying the online help (C:\Program  
Files\Internet Explorer\iexplore.exe): <hitting Enter will  
accept the value in parenthesis>
```

```
RIHA configuration completed.
```

RIHA is configured and ready. Execute the riha.bat script to start.

Chapter 6 – J2EE integration

This chapter will briefly review the configuration required for integrating with a J2EE application running in a WebSphere version 5 application server. Currently, the RIB integrates with three J2EE applications: AIP, RPM and RCOM.

△Delta Install Note: J2EE Application PAKs require a full install. No delta install is provided.

RIBfor<App> installation and configuration

Introduction

An application-specific version of the RIB in a J2EE environment is referred to as RIBfor<App> (i.e. RIBforRCOM, RIBforAIP, RIBforRPM, etc). This application is packaged as an EAR file that can be deployed to the WebSphere server.



Note: The naming convention may differ based on applications released.

After the installation of the WebSphere application server, the WebSphere instance can be configured using the RIB configuration scripts and then the RIBfor<App> application can be installed on the server instance.



Note: For the rest of this document, \$WAS_HOME will be used to represent your WebSphere installation directory. When deploying RIBfor<App> through WebSphere Application Server Network Deployment, WAS_HOME will represent the WAS ND installation directory (e.g. /u01/webrib/WebSphere/DeploymentManager)

(e.g. /files1/rcomj/WebSphere/AppServer).

\$INSTANCE_HOME refers to the location under which the rib software will reside once configuration/installation is complete. This is the path to the specific application server instance the RIBfor<App> application will be deployed on

(e.g. /files1/rcomj/WebSphere/AppServer).

When deploying RIBfor<App> through WebSphere Application Server Network Deployment, INSTANCE_HOME will represent the WAS installation directory that will participate as a node to WAS ND (e.g. /u01/webrib/WebSphere/AppServer)

If the WebSphere server installation uses only one instance, then the \$WAS_HOME can be the same as the \$INSTANCE_HOME.



Note: It is recommended to have a separate WAS Instance for each enterprise application.

Setup

FTP the `ribpak<version>for<app_version>_eng_ga.tar` file to a temporary directory on the server where WebSphere is installed. This location will be known as `$RIB_INSTALL_HOME`. Untar the contents of this file into this directory.

WebSphere configuration

The configure scripts will create and configure the listener ports, the Generic JMS provider, and the JDBC DataSources in WebSphere using jacl scripts.

Edit the following parameters in the `$RIB_INSTALL_HOME/rib/config/rib-config.properties` file to configure the instance of WebSphere for the RIBfor<App> application.

This file can be found in the `$RIB_INSTALL_HOME/rib/config` directory.



Note: While editing `$RIB_INSTALL_HOME/rib/config/rib-config.properties` replace with the actual value of the variable when we refer to any variables as `$VARIBALENAME` in this document.

For E.g. If this document says

externalProviderURL=file:///INSTANCE_HOME/rib-rcom/sbynjndi

You should enter

externalProviderURL=/yourwasdir/rib-rcom/sbynjndi

- **WAS_HOME:** The value of `$WAS_HOME`
(e.g. `/files1/rcomj/WebSphere/AppServer`).
- **WAS_INSTANCE_HOME :** The value of `$INSTANCE_HOME`. If `DEPLOYING_THROUGH_WAS_ND` is “true” `INSTANCE_HOME` should be the path(`$WAS_HOME`) of the remote AppServer that will act as a node to WAS ND.
(e.g. `/files1/rcomj/WebSphere/AppServer`).
- **DEPLOYING_THROUGH_WAS_ND :** The value of true if deployed through WAS ND. If deployed through standard WAS the value should be false.
`DEPLOYING_THROUGH_WAS_ND=false`

- **cell:** The cell name of the WebSphere instance where the RIBfor<App> application will be installed.



Note: If deployed through WAS ND “cell” should be have the value of WAS ND’s cell.

(e.g. `ribserver01`)

- **node:** The node name of the WebSphere instance where the RIBfor<App> application will be installed.



Note: If deployed through WAS ND, “node” should be the name of the node of the standard WAS that will participate as a Node to WAS ND.

- **host_name:** The host name of the computer that WebSphere is installed on.

- **serverName:** The server name within the WebSphere instance where the RIBfor<App> application will be installed.

(e.g. server1)



Note: The acceptable values for the serverName variables are “server1”, “server2”, “server3” or “server4”. If serverName is something other than these values the uninstall process will not clean up the j2ee resources defined. The person uninstalling RIB will have to delete the resources manually through websphere adminconsole.



Note: The rib-<app>.ear must be installed in a different server (e.g. server1) than the applications (AIP, RCOM, RPM) server (e.g. server2)

- **was_soap_port:** The SOAP port which the above serverName utilizes.



Note: If deployed through WAS ND, SOAP port should point to the DeploymentManager’s SOAP port.

(e.g. 8880)

- **ribDbJdbcUrl:** The JDBC URL to the <App> Hospital database.
(e.g. For RPM, ribDbJdbcUrl=jdbc:oracle:thin:@dbserver01:1521:dbname)
- **ribDbUserId:** The Oracle username for the <App> Hospital database.
(e.g. For RPM, ribDbUserId=dbuser01)
- **ribDbPassword:** The Oracle password for the <App> Hospital database.
(e.g. For RPM, ribDbPassword=pwd1)
- **externalProviderURL:** The file URL to the sbynjndi directory. This directory will be created when ribinstall.sh is run.
(e.g. [file:/// \\$INSTANCE_HOME/rib-rcom/sbynjndi](file:/// $INSTANCE_HOME/rib-rcom/sbynjndi))
- **JMS_HOST, JMS_PORT:** The hostname and port where the JMS provider is running.

Edit the properties files

Edit the \$RIB_INSTALL_DIR/rib/properties/rib.properties, and the \$RIB_INSTALL_DIR/rib/properties/hibernate.cfg.xml files. These files will be copied by the install process to \$WAS_HOME/rib-<app> directory. Post install maintenance should be done from \$WAS_HOME/rib-<app> directory.

RIB properties

The rib.properties file contains the RIB specific properties used by the RIB subscribing Message-Driven Beans and publishing Stateless Session Beans that are deployed on the Application Server.

In order for integration to function properly, edit the application-specific properties and the JNDI/JMS properties. See the descriptions below for more information:

Error Hospital entries

This section details the entries used for retrying messages from the Error Hospital.

hospital.attempt.max – This is the maximum number of attempts to try to push this record through the RIB automatically, once this retry count is reached the message remains the Error Hospital DB but is no longer retried automatically.

hospital.attempt.delay – value (in seconds) used to calculate the next attempt time

hospital.attempt.delayIncrement – value (in seconds) used to calculate the next attempt time.

The next attempt time is calculated as:

$\text{hospitalAttemptDelay} + (\text{hospitalAttemptDelyIncrement} * \text{attempt count})$

This is done so that the delay between each attempt is longer than the previous delay.

numOfRecordsToRetry – value (in number of records), maximum to retry in a single pass.

Example:

```
#####
```

```
# These are the RIB hospital properties.
```

```
hospital.attempt.max=5
```

```
hospital.attempt.delay=10
```

```
hospital.attempt.delayIncrement=10
```

```
numOfRecordsToRetry=20
```

```
#####
```

Logging entries

The RIB has its own logging capabilities. The RIB support Java classes contain logging logic which write to RIB log files which are written to a user specified directory.

log.default.file_path - Path where RIB and Timings log files will be written. It must end with a directory separator / or \.

Example:

```
#####
```

```
# Path where RIB and Timings log files will be written. It must end with
```

```
# a directory separator / or \.
```

```
log.default.file_path=/files2/websph/WebSphere/AppServer/logs/server1/
```

```
#####
```

JNDI/JMS configuration

These configurations specify the locations of the JNDI naming service and the JMS Queue.

rib.jndi.context.factory – This is the JNDI context factory to use for JNDI lookups to a RIB EJB. This is defaulted to the WebSphere Initial Context Factory.

rib.jndi.url – This is the URL to the RIB JNDI service.

rib.jms.hostname – This is the JMS hostname (servername) of the JMS Queue.

rib.jms.port – This is the JMS port of the JMS Queue.

rib.jms.write_file – This property specifies whether or not to write each JMS XML message out to a file.

war.http.port – This property should be set to the value of the HTTP port for the WebSphere instance where the RIB components will be installed. It is required to access the servlet that automatically stops the Subscriber MDBs in case they cannot process messages to prevent them from looping indefinitely.

Example:

```
#####
# This is the hostname and port of the eGate JMS provider.
rib.jms.hostname=<servername> e.g. mspdev14.retek.int
rib.jms.port=<portname> e.g. 24053
# Write each JMS message (XML) out to a file? [Y, N, True or False]
rib.jms.write_file=False
#####
# These are JNDI properties for the RIB.
rib.jndi.context.factory=com.ibm.websphere.naming.WsnInitialContextFactory
rib.jndi.url=iiop://localhost:2809
#####
```

Implementation classes

In order to promote pluggable, platform specific implementations, the RIB allows the specification of platform-specific classes for a variety of functions. These functions include the actual creation of a RibMessages XML message and the interface to an alert mechanism. The following entries are used to specify what Java classes should be used for these functions:

alertPublisherImpl -- Interface to the Alerting mechanism

Values: com.retek.rib.sbyn.alert.EgateAlertPublisher (SeeBeyond)

```
com.retek.rib.alert.impl.EmailAlertPublisher(J2EE)
```

If the alert publisher is email alert the following mail.* properties are required.

mail.smtp.host - Your SMTP server host.

Eg. mail.retek.int

mail.smtp.port - Your SMTP server port.

Eg. 25

mail.smtp.from - The email address that will be the source of the alert.

Eg. name@company.com



Note: Some SMTP server require this to be a valid email address know to the SMTP server.

mail.smtp.to.list - The list of email address separated by commas(,) to whom alert emails will be sent.

Eg. x@company.com, y@company.com

ribPublisherImpl – Class used to publish messages (to JMS or other).

Values: com.retek.rib.j2ee.J2eeJMSPublisher

ribBindingImpl – Class used to unmarshal XML messages into Payloads.

Values: com.retek.rib.binding.impl.castor.CastorBindingImpl

Example:

```
#####
```

```
# Version of AlertPublisher, RibPublisher, etc. the RIB is using.
```

```
alertPublisherImpl=com.retek.rib.alert.NullAlertPublisher
```

```
ribPublisherImpl=com.retek.rib.j2ee.J2eeJMSPublisher
```

```
ribBindingImpl=com.retek.rib.binding.impl.castor.CastorBindingImpl
```

```
#####
```

Publishing configuration

These properties are used to configure publishing from WebSphere to the JMS Topic.

<family-name>=<topic-name> - These properties map a publishing family name to the correct topic name on the JMS Topic (eg. COBORES = etCoBoResFromRCOM).

publisher.force_hospital – This property forces all messages published from WebSphere directly to the hospital table in the database instead of the JMS Topic.

dtd_url.default – The location of DTD files. Used when building message payloads.

Example:

```
#####
# List of publishing topics for each message family
COBORES=etCoBoResFromRCOM
CODSRCPT=etCODSRcptFromRCOM
CORETURN=etCOReturnFromRCOM
CORRESPONDENCE=etCorrespondenceFromRCOM
COSALE=etCOSaleFromRCOM
CUSTORDER=etCustOrderFromRCOM
CUSTRETURN=etCustReturnFromRCOM
DSPO=etDSPOFromRCOM
GIFTREG=etGiftRegFromRCOM
INVADJUST=etInvAdjust
PAYMENTS=etPaymentsFromRCOM
PENDRETURN=etPendReturnFromRCOM
WOSTATUS=etWOStatusFromRCOM
WOINT=etWOIntFromRCOM
#####
# Flag to force all published messages into the hospital instead of JMS
publisher.force_hospital=false
#####
```

Subscribing configuration

These properties are used to configure the behavior of the Subscriber/Tafr MDB's.

tafr.types.filter.<family>=<type>,<type>,<type>... - The types listed here will be passed to the subscribing application. All other types will be dropped.

subscriber.call_injector – Set this to false to stop the RIB from calling the injector in order to test or debug the RIB code. Default is true.

Example:

```
#####  
# Message types to be allowed by the TAFR Ejb's default filtering capability  
# tafr.types.filter.<family>=<value>,<value>,<value>...  
tafr.types.filter.banner=bannercre,bannermod,channelcre,channelmod  
tafr.types.filter.diffgrp=diffgrphdrcre,diffgrphdrmod,diffgrpdtlcre,dif  
fgrpdtlmod  
#####  
# Flag to stop call to injector (to test subscribe code on RIB side only)  
subscriber.call_injector=true
```

Edit hibernate properties file

Hibernate is used for Object Relational Mapping and Database interaction within the RIB's hospital code. Edit \$RIB_INSTALL_HOME/rib/properties/hibernate.cfg.xml file to define your database information. During the install process it will be copied to \$WAS_HOME/rib-<app> directory. The following properties in this file will need to be edited before the RIBfor<App> application will be able to run:

- “hibernate.connection.username” – the username to connect to that database.
- “hibernate.connection.password” – the password to connect to that database.

Edit the jndi_providers.xml and services_rib.xml file.

The jndi_providers.xml contains the IIOP host and port for the application that RIB communicates with.

Edit the \$RIB_INSTALL_HOME/rib/properties/retek/jndi_providers.xml to provide the application IIOP host and port.

Edit \$RIB_INSTALL_HOME/rib/properties/retek/services_rib.xml to put your application name in the injector service. The acceptable values are “rcom” and “rpm”. For example.

Before:

```
<interface package="com.retek.rib.binding.injector" app="rcom">
    <impl package="com.retek.rib.binding.injector.impl" />
</interface>
```

After:

```
<interface package="com.retek.rib.binding.injector" app="rpm">
    <impl package="com.retek.rib.binding.injector.impl" />
</interface>
```

During the install process these files will be copied to \$WAS_HOME/rib-<app>/retex directory.

Install RIB

From the \$RIB_INSTALL_HOME/rib directory, run the **ribinstall.sh** script. This will perform the following:

1. Creates a new directory under \$WAS_HOME called rib-<app>. This will be referred to as RIB_LIB.
2. Copies the jar file from the \$RIB_INSTALL_HOME/rib/oracle directory to this new RIB_LIB directory.
3. Copies the files from the \$RIB_INSTALL_HOME/rib/properties directory to this new RIB_LIB directory.
4. Copies the jar file from the \$RIB_INSTALL_HOME/rib/sbynjndi directory to this new RIB_LIB directory.
5. Runs the configure.sh script from the \$RIB_INSTALL_HOME/rib/config directory.
6. Runs the ribadmin.sh script to create and configure the JNDI .bindings file. This file is used by WebSphere to connect to SeeBeyond as a Generic JMS Provider.
7. Runs the ribadmin.sh script to install the rib-<app>.ear file.
8. Restart the WebSphere server, which the application was installed into.

Custom installation

Make sure base rib-<app>.ear is installed.

1. Copy custom-retek-payload.jar to WAS_HOME/installedApps/<your node>/rib-<app>.ear/lib directory.
2. Copy rib.properties to WAS_HOME/rib-<app> directory.
3. Bounce the application server.

WebSphere ND installation

Only if you are deploying RIBfor<App> through WebSphere Application Server Network Deployment (WAS ND) perform the step described below. The steps are in swimlane format and so each step has to be performed in the correct order in the correct WebSphere instances. The first column is for WebSphere ND and the second column is for the standard WebSphere that will participate as a Node to WebSphere ND.

Steps	WebSphere ND (DeploymentManage)	WebSphere (AppServer)
1	Start WebSphereND. a. Change directory. <code>cd <WAS_HOME>/DeploymentManage/bin</code> b. Start the DeploymentManage <code>startManager.sh</code>	
2		a. Add the node to the DeploymentManage. <code>addNode.sh <host of DeploymentManage></code> <code><port of DeploymentManage></code>
3	Bounce the DeploymentManager. a. <code>stopManager.sh; startManager.sh</code>	
4		a. Start the Node. <code>startNode.sh</code>
5		Start the server in this Node. a. <code>startServer.sh <serverName></code> e.g. <code>startServer.sh server1</code>
6	Prepare the rib-<app> for install. a. Make a temporary directory where RIB libraries will be saved. This library directory has to match the WAS_HOME of the Node AppServer. <code>mkdir -p <NODE's WAS_HOME></code> b. Edit the config/rib-config.properties as described in the above section.	

Steps	WebSphere ND (DeploymentManage)	WebSphere (AppServer)
7	a. Install the rib-<app>.ear application. ribinstall.sh	
8	Fix the classpath for the Generic JMS provider. Check “Synchronize changes with Node” while saving.	
9	Transfer the shared library files to the Node WAS machine. FTP the temporary directory (rib-<app>) that was created in step 6. All files and directories has to be moved from WAS ND to the WAS Node machine.	
10	Bounce the server on the node. 1. ribadmin.sh stop 2. ribadmin.sh start	
11		a. Check the SystemOut.log file for status information.



Note: If you need to run any ribadmin.sh commands that will produce and output file you will need to create the temporary directory as in step 6 above. The output file has to be then ftp'd to the correct Node machine.

Upgrading from previous version(1102) of RIB

Delta Install Note: These instructions are provided to upgrade from a previous version (11.0.2) of the RIB; however any changes to that previous J2EE RIB application will be over-written.

Follow the steps below to upgrade your RIB J2EE application to the latest version.

1. Uninstall your old RIB 1102 application
 - Change directory to old \$RIB_INSTALL_HOME/rib
cd \$RIB_INSTALL_HOME/rib
 - Uninstall RIB ear file.
ribadmin.sh uninstall
 - Bounce WebSphere.
ribadmin.sh bounce
2. Backup your old configuration data
 - Backup RIB Shared library directory (\$WAS_INSTANCE_HOME/rib-<app>)
 - Backup your old \$RIB_INSTALL_HOME directory.

3. Cleanup

- Remove old RIB Shared library directory (\$WAS_INSTANCE_HOME/rib-<app>)
`rm -rf $WAS_INSTANCE_HOME/rib-<app>`
- Remove your old \$RIB_INSTALL_HOME directory.
`rm -rf $RIB_INSTALL_HOME/rib`

4. Install new RIB application.

- Perform a full installation of RIB following the documentation above. Use your old rib-config.properties as a reference while configuring the new rib-config.properties file.

Install verification

After the script has successfully run, verify that the Generic JMS Provider, Message Listener Ports, and the Oracle DataSource were configured by looking at the following screens in the WebSphere Admin Console:

- **Generic JMS Provider:** From the WebSphere Admin Console, click Resources -> Generic JMS Providers -> Server. You will see “SeeBeyond JMS Provider” as the available resource. The JMS Connection Factory as well as all of the JMS Destinations is defined here.



Note: There is known issues with WebSphere not accepting the new line characters (\n) that are passed in to the install guide to set the Classpath property of the SeeBeyond JMS Provider. Click on SeeBeyond JMS provider and edit the Classpath Property. Remove the existing new line spaces for each directory path and press enter to re-create them.

- **Message Listener Ports:** From the WebSphere Admin Console, click Servers -> Application Servers -> server1 -> Message Listener Service -> Listener Ports. You will see all of the WebSphere Listener Ports defined here.
- **Oracle DataSources:** From the WebSphere Admin Console, click Resources -> JDBC Providers -> Server. You will see “Oracle JDBC Thin Driver (XA)” as the available resource. All of the <App> DataSources are defined here. The “Oracle Rib Datasource” is the DataSource that the RIB utilizes.

Bindings

The .bindings file connects WebSphere to the generic JMS provider, which in this case is a SeeBeyond JMS provider. The .bindings file is specific to an instance of a SeeBeyond JMS, based on the JMS host name and JMS port number. This file must be present in order for message subscription and publication to function correctly. This file is created and configured during the installation when you run **ribinstall.sh**, you do not need to run it again during installation. If JMS information has changed in \$RIB_INSTALL_DIR/rib/config/rib-config.properties you can rebind by running the following command.

To create a new .bindings file:

1. Delete any existing .bindings file in the following application server directory:
\$INSTANCE_HOME/rib-<app>/sbynjndi.
2. In the \$RIB_INSTALL_DIR/rib-<app> directory, Run the following command to generate the bindings file: (Note that all environment values are read from the rib-config.properties file that was edited in the previous section)

```
ribadmin.sh binding
```
3. Verify that the .bindings file was created in the \$INSTANCE_HOME/rib/sbynjndi directory by running the following command:

```
ls -las .bindings
```

Reinstallation of rib-<App>.ear

The command line utility \$RIB_INSTALL_DIR/rib/ribadmin.sh can be used for installation and server administration. See the RIB command-line utility section for information on this utility.



Note: If this is a new install and you ran **ribinstall.sh** you do not have to run the following “ribadmin” commands.

Using the ribadmin script

If the RIBfor<App> application had been previously installed, run:

```
ribadmin.sh uninstall
```

1. To generate the deployed ear file, run:

```
ribadmin.sh install
```
2. Bounce the WebSphere server to accept the changes and start the RIBfor<App> application and listener ports by running:

```
ribadmin.sh bounce
```

After installation, verify that the RIBfor<App> application is running by looking at the Applications screen in the WebSphere Admin Console. If the application started it will show a green arrow next to the application name. If errors occurred, a red x will be shown next to the application name. Check the WebSphere log files (in the INSTANCE_HOME/logs/<server-name>/ directory) in order to troubleshoot any errors.

RIB deployment command-line utility

ribadmin

The command-line utility performs server-side functions for the RIBfor<App> application.

Commands

The following commands are available for this utility:

- **stop:** Stops the server for INSTANCE_HOME.
- **start:** Starts the server for INSTANCE_HOME.
- **dellogs:** Deletes *.log from the LOG_PATH.
- **bounce:** Bounces the server for INSTANCE_HOME.
- **genlog4j:** Generates the log4j.xml for RIBfor<App> app.
- **install:** Installs the RIBfor<App> application on INSTANCE_HOME.
- **uninstall:** Uninstalls the RIBfor<App> application on INSTANCE_HOME.
- **reinstall:** Reinstalls the RIBfor<App> application on INSTANCE_HOME.
- **binding:** Generates a new .bindings file in the SBYNJNDI directory.
- **props:** Displays the values for all the properties in the script.

Usage

Run this utility by using the following command:

```
ribadmin.sh <command>
```

Configuration

The ribadmin.sh script uses the configuration settings previously set when rib-config.properties was modified.

Troubleshooting

Where to look for help

- Look at the log files generated by WebSphere and/or log4j to find information on the specific errors that are occurring within the WebSphere container. See the preceding log4j section for more information on log4j logging. See the WebSphere Admin Console's Troubleshooting section to find the location of the WebSphere log files.
- Look at the RIB Hospital tables for more information on message-specific errors through publishing or subscribing.

Checking the WebSphere configuration

Log in to the WebSphere Admin Console for your instance of WebSphere.

- Check that the SeeBeyond JMS Provider configuration is correct
Click the Resources menu, and then click on Generic JMS Provider->Server in the WebSphere Admin Console. There should be a provider set up for the SeeBeyond JMS Provider. The classpath on that entry should contain the filepath on the server to three jars: stjms.jar, providerutil.jar, and fscontext.jar. The external provider URL should contain the filepath to the sbynjndi directory on the server. Click on JMS Destinations, and check that there is an entry for each topic that needs an MDB subscription. Go back one screen, and click on JMS Connection Factories. There should be one entry for and XA TopicConnection Factory.
- Check that the Oracle JDBC Provider configuration is correct
Click the Resources menu, and then click on JDBC Providers in the WebSphere Admin Console. There should be a JDBC Provider set up for the Oracle JDBC XA Provider.
- Check that the Message Listener configuration is correct
Click the Server menu, and then click on Application Servers in the WebSphere Admin Console. Select your server instance from the list of servers. Select Message Listener Service from the Additional Properties section, and then select Listener Ports. This list should show all of the available listener ports and their status. They should all have a status of "Started", which displays a green arrow image.
- Check that the Application classloader policy property is set to "MULTIPLE" in the WebSphere Admin Console. See the note in the RIBfor<App> ear installation section for more information on this property.

Chapter 7 – ISO integration

This chapter will review the steps required for integrating the RIB with SIM.

Manual steps

Log into the SIM application server as the user who performed the SIM install.

1. Create a temporary install directory for integrating RIB with SIM. This temporary directory will be known as `<ISO_TMPINSTALL_DIR>` for the remainder of this section:

```
> mkdir INSTALL
```

2. Copy the file `ribpak<version>foriso<iso_version>.tar` to `<ISO_TMPINSTALL_DIR>`.

3. Once you have copied the file, extract the contents.

```
> tar xvf 'ribpak<version>foriso<iso_version>.tar'
```

4. Ensure all files located in `<ISO_TMPINSTALL_DIR>` have the correct permissions by issuing the following command in `<ISO_TMPINSTALL_DIR>`:

```
> chmod -R 755 *
```

5. Edit the file `iso_profile`. This file is located at `<ISO_TMPINSTALL_DIR>/RIB<version>`. Make sure the settings for the following variables are correct for your environment.

- `ISO_TMPINSTALL_DIR` - Same directory created in step 1 above
- `ISO_INSTALL_DIR` - The directory where ISO was installed.



Note: The install script expects `ISO_TMPINSTALL_DIR` to include the temporary install directory created in step 1 above (eg: `/files0/jadmin/INSTALL`) and `ISO_INSTALL_DIR` to include the full directory path leading up to `server<platform>` (eg: `/files0/jadmin/iso`)

6. Shut down the SIM application server. In `<ISO_TMPINSTALL_DIR>/RIB<version>` run `iso_profile`:

```
> . iso_profile
```

7. In `<ISO_TMPINSTALL_DIR>/RIB<version>`, run `installisoconfig`.

```
> ./installisoconfig (When asked if you wish to proceed, type YES and hit enter)
```

8. Steps for the RIB Error Hospital:

- Check the ISO schema for the existence of the following RIB error hospital tables: RIB_MESSAGE, RIB_MESSAGE_FAILURE, and RIB_MESSAGE_ROUTING_INFO.
- If the RIB error hospital tables do not exist, ensure that the following tablespaces exist: LOB_DATA, RETEK_DATA, and INDEX_DATA



Note: Do not run the following sql scripts if the rib error hospital tables above already exist. These scripts will drop and re-create the tables, thus deleting all data in the tables.

- run all_rib_tables.sql as the ISO schema to create the required RIB tables. This script is located at <ISO_TMPINSTALL_DIR>/RIB<version>/XML.
- run rib_message_seq.sql as the ISO schema to create the sequence number for the table RIB_MESSAGE. This script is located at:<ISO_TMPINSTALL_DIR>/RIB<version>/XML.



Note: Since the database scripts drop and re-create the tables, ignore any errors resulting from trying to drop objects that don't exist. These errors are expected.

- ### 9. Edit the file ribmessaging.cfg. This file is located at <ISO_INSTALL_DIR>/server<platform>/retek/sim/files/prod/config. Make sure the setting for the following variable is correct for your environment. This value must match exactly values listed in the SeeBeyond configuration file cpJMS.cfg of HostName+Port Number (I.E cpJMS.cfg-HostName: mspdev05.retek.int, cpJMS.cfg-Port Number: 37053, ribmessaging.cfg-BROKER: mspdev05.retek.int:37053).

BROKER=<EGATE_SERVER_NAME>:<JMS_PORT>

(eg: BROKER= mspdev05.retek.int:37053)

- ### 10. Edit the file log4j.xml. This file is located at <ISO_INSTALL_DIR>/server<platform>/retek/sim/files/prod/config. Replace all occurrences of <ISO_INSTALL_DIR> in this file with the full directory path leading up to the /server<platform> directory.

- Ex: <param name="File" value="<ISO_INSTALL_DIR>/server<platform>/retek/sim/log/itemsmessagingcomponent.log"/>

(eg: <param name="File" value="/files0/jadmin/sim11.0/server<platform>/retek/sim/log/itemsmessagingcomponent.log"/>)

Replace all occurrences of <SERVER> and <PORT> in this file with the <EGATE_SERVER_NAME> and <JMS_PORT> values configured for the BROKER property of the ribmessaging.cfg file.

11. Edit the file `rib.properties`. This file is located at `<ISO_INSTALL_DIR>/server<platform>/retek/sim/files/prod/config`. Replace the occurrence of `<ISO_INSTALL_DIR>` in this file with the full directory path leading up to the `/server<platform>` directory.

- Ex: `log.default.file_path=<ISO_INSTALL_DIR>/server<platform>/retek/sim/log/`
(eg: `log.default.file_path =/files0/jadmin/sim11.0/server<platform>/retek/sim/log/`)

12. Edit Hibernate Properties file

Hibernate is used for Object Relational Mapping and Database interaction within the RIB's hospital code. Edit `<ISO_INSTALL_DIR>/server<platform>/retek/sim/files/prod/config/hibernate.cfg.xml` file to define your database information. The following properties in this file will need to be edited before the RIBforISO application will be able to run:

- “connection.username” – the username to connect to the ISO schema.
- “connection.password” – the password to connect to the ISO schema.



Note: Make sure `connection.url` is not defined in `hibernate.cfg.xml` file.

ISO reference

The following sections are noted here for reference.

rib.properties file

The `rib.properties` file contains the RIB specific properties used by the RIB subscribing messaging components under ISO. These messaging components will be deployed in an ISO container, one for each subscribing API. Some of the important sections of this file are illustrated below:

```
#####
# These are the RIB hospital properties.
hospital.attempt.max=5
hospital.attempt.delay=10
hospital.attempt.delayIncrement=10

#####
# These are properties that are also used in the process
# of putting a message in the hospital. The difference here
# is that these properties control some of the concrete classes
# that are used in this process.
failureImpl=com.retek.rib.sbyn.FailureWrapper
routingInfoImpl=com.retek.rib.sbyn.RoutingInfoWrapper
routingInfoDetailImpl=com.retek.rib.sbyn.RoutingInfoDetailWrapper
ribMessageImpl=com.retek.rib.sbyn.RibMessageWrapper
ribMessagesImpl=com.retek.rib.sbyn.RibMessagesWrapper

#####
# The RibBinding class that the RIB should use for XML Binding of
# Payload objects
# Use com.retek.rib.binding.impl.castor.CastorBindingImpl for Castor
# (default)
ribBindingImpl=com.retek.rib.binding.impl.castor.CastorBindingImpl
```

```
#####
# Path where RIB and Timings log files will be written. It must end
with
# a directory separator / or \.
log.default.file_path=/<ISO_INSTALL_DIR>/serverUnix/retek/sim/log/

#####
# This property is used to test Rib interaction and
# skip actual call to inject
# To skip call to inject set to value = false
subscriber.call_injector=true
```

Example of a messaging component configuration file

We will use the ASNIIn API for an example of a configuration file. These configuration files can be found in the **<ISO_INSTALL_DIR>/server<platform>/retек/sim/files/prod/config** directory.

```
# The queue or topic name from which to accept messages.
#QUEUE_NAME
TOPIC_NAME=etASNIInFromRIBtoISO

# Makes the subscription durable (see JMS specification).
DURABLE_SUBSCRIBER=true

#
JMS_COMPONENT_TYPE=Subscriber

# The messaging group for which to listen.
MESSAGING_GROUP=

# Module name to be used for the Rib's context object.
MODULE_NAME=ISOSubscriberMessagingComponent

# Sub-module name to be used for the Rib's context object.
SUB_MODULE_NAME=ASNIIn

# If TRUE, only a single thread will be used to call the
# processMessages(ArrayList) method. If FALSE, multiple
# threads may call this method. Default is TRUE.
SINGLE_THREADED=TRUE

# Disconnect from the server for the specified number of minutes
between checks
# for messages. Note that this does not make sense for a non-durable
topic-based
# subscription. Therefore, a value of 0 will cause the component to
stay
# connected. The default is 0.
CONNECTION_INTERVAL=0

# The config file to use for setting up messaging. The default is
# "messaging.cfg".
MESSAGING_CONFIG=ribmessaging.cfg

####
# STANDARD COMPONENT PARAMETERS
```

```
#####

# Remote Object Lookup Name
REMOTE_NAME=ASNInMessagingComponent

# Collect Performance Statistics
PERFORMANCE=true

# Logging
LOGGING_IMPL=com.retek.iso.cr.logging.LoggingFileServices
LOGGING_FILE_NAME=../log/asninmessagingcomponent.log
LOGGING_LEVEL=4
LOGGING_PAUSE=5000
LOGGING_SYSTEM_OUT=true
LOGGING_SYSTEM_ERR=true
```

ribmessaging.cfg file

This configuration file is used to configure the JMS messaging parameters across all of the RIB's APIs, publishing and subscribing.

```
# The client impl is the class that implements the MessagingServices
contract.
#CLIENT_IMPL=com.retek.rib.redsky.RibSeeBeyondJmsServices

# The time-to-live for messages sent to the server.
MESSAGE_LIFETIME=1800000

USE_SESSION_TRANSACTION=true

# This identifies a specific instance of SIM on the JMS topic (used
for retryLocation)
UNIQUE_LOCATION_ID=Store1

#-----
# Grouping Information
#-----

# Default class uses other properties
#GROUPING_UTIL=com.retek.iso.cr.messaging.grouping.MessagingGroupSer
vice

# POS device-specific class uses Store and Register in global
repository
GROUPING_UTIL=com.retek.iso.cr.messaging.grouping.POSMessagingGroupS
ervice

# Default group name
DEFAULT_GROUP=RTK

# Default device info
DEVICE_ID=NONE

# Default device type (Unknown = -1, RNS = 0, Application Server =
1,
# POS terminal = 2, Web server for PDA = 3)
DEVICE_TYPE=-1
```

```
#####
# JMS-SPECIFIC
#####

# The Broker is the JMS server address and port. The default port is
1099
# for OpenJMS. We change it to 9099 to avoid a conflict with
Cloudscape.

# Note: The broker host name must match the SeeBeyond Connect Point
or
# the hospital retry will not find messages in RIB_MESSAGE
BROKER=mspdev14.retek.int:24444

# Username and password are set via administration of the JMS server
USERNAME=
PASSWORD=

# Number of times to try getting a connection to JMS server
MAX_CONNECTION_TRIES=2

# Number of seconds to pause between connection attempts
PAUSE_BETWEEN_TRIES=2

# Number of seconds to pause between "ping" attempts. The system
# will ping the JMS queue to see if it's still there, and then
# wait this number of seconds before pinging again. If this entry
# does not exists, the number of seconds defaults to 5.
PAUSE_BETWEEN_PINGS=5

# Whether to skip publication to the Jms queue manager, and insert
# published messages directly into the Rib hospital tables.
SKIP_JMS=false
```

Appendix A – RIB installation checklist

SeeBeyond e*Gate installation checklist

Task	Notes
Pre-Installation	
UNIX server – OS requirements met	Each OS (AIX, HP-UX, Solaris, etc) require specific OS levels and patches. See the SeeBeyond Installation Manual for specifics
egate user created	
File systems and directories configured	
Installed JRE	See Retek RIB Release notes for required version.
Install SeeBeyond's e*Gate – Registry and Participating Hosts	Configurations will vary based on site architectures.
Install SeeBeyond's e*Gate Add-ons	See Retek RIB Release notes for required list
Install ESRs	See Retek RIB Release notes for required list.
Install SeeBeyond's GUI Tools	
Verify GUI tools connection to Default Schema	

Retek RIB schema installation checklist

Task	Notes
Preliminary steps	
Copy the RIB tar files to INSTALL directory.	
Un-tar files and set permissions	Observe sequence requirements! RMS must be un-tar'd last.
Edit the file egate_profile	Add site specific info. Changes may be need to point to different JRE than SB default
Edit egateclient.sh	Changes may be need to point to different JRE than SB default
Edit the "egate" user's .profile	
Verify xterm capability	
Create new RIB schema	Using GUI Admin tool.

Task	Notes
Open xterm window	
Run the “install” script	This will import all of the appropriate e*ways.
Verify no errors.	
Verify Install with GUI Admin Tool	

Retek RIB configuration checklist

Task	Notes
Modify the main Participating Host and Control Broker configuration.	These must be configured to the correct host name and network.
Modify the JMS IQ Manager configuration	Set port number
Modify Connection Point configurations	Modify to reflect the JMS IQ Manager host and port and Oracle databases used.
Change SeeBeyond JMS Connection Points	In the default installation, all SeeBeyond JMS Connection points share the same configuration file. Modify to host and port.
Change Oracle Database Connection points	Alter to reflect the database instance and the user-ID/login for each of the applications
Delete unused e*Ways	Be careful.
Add/Copy e*Ways for additional components	Add custom e*ways here.
Edit the rib.properties file.	Edit to reflect the site-specific mappings and properties
Create/modify startup scripts and Egate.txt	Default scripts are provided.
Update the hibernate.cfg.xml.	Update with valid database settings (database user, database password). Make sure connection.url property is not defined in this file.
Copy classes12.zip file to server and client classpath	