

Oracle Insurance

**Insbridge Enterprise
Rating
Using Batch Rating**

Release 5.6

November 2018

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Oracle Insurance Insbridge Enterprise Rating Using Batch Rating

Release 05.06.xx

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PREFACE

Welcome to the *Oracle Insurance Insbridge Enterprise Rating Batch*. The Insbridge Enterprise Rating (Insbridge) System is a browser-based, multiplatform insurance rating and underwriting technology solution that provides integrated management for every aspect of the rate definition and modification process. This guide assists with the setup of the IBSS component for batch rating.

In previous Insbridge releases, batch rating was performed in a Windows environment where multiple XML files were rated at one time with rates returned in a result report. This meant Java users had to have a Windows environment to batch. Java users now can use their Java production environments to batch including using multiple nodes. Batch rating rates all files in the SoftRater DBRuntime database and batch rates from database to database and not to and from files.

Batch is available for IBSS for WebSphere, IBSS for JBoss and IBSS for WebLogic application servers using Oracle 11g and 12c databases only. IBM DB2 and Microsoft SQL Server cannot be used for batching in IBSS.

NOTE: *Batch is not available for use with Microsoft SQL Server or IBM DB2 databases.*

AUDIENCE

This guide is intended for system administrators, and others tasked with installing and configuring the Insbridge system and associated databases.

RELATED DOCUMENTS

For more information, refer to the following Oracle resources:

- The Oracle Insurance Insbridge Enterprise Rating Operating Environments for Hardware and Software.
- You can view this guide on-line at this address:

<http://www.oracle.com/technetwork/documentation/insurance-097481.html>

CONVENTIONS

The following text conventions are used in this document:

Convention	Description
bold	Boldface type indicates graphical user interface elements associated with an action.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Manual History

New editions incorporate any updates issued since the previous edition.

Edition	Publication Number	Product Version	Publication Date	Comment
1 st Edition	P01-794-01	R 4.8	August 2014	Introduced for release 4.8
2 nd Edition	P01-794-02	R 4.9	December 2014	Update release
3 rd Edition	P01-794-03	R 5.0.1	August 2015	Update release
4 th Edition	P01-794-04	R 5.1	December 2015	Update Release
5 th Edition	P01-794-05	R 5.2	July 2016	Update Release
6 th Edition	P01-794-06	R 5.4	January 2017	Update Release
7 th Edition	P01-794-07	R 5.5	September 2017	Update Release
8 th Edition	P01-794-08	R 5.6	August 2018	Update Release

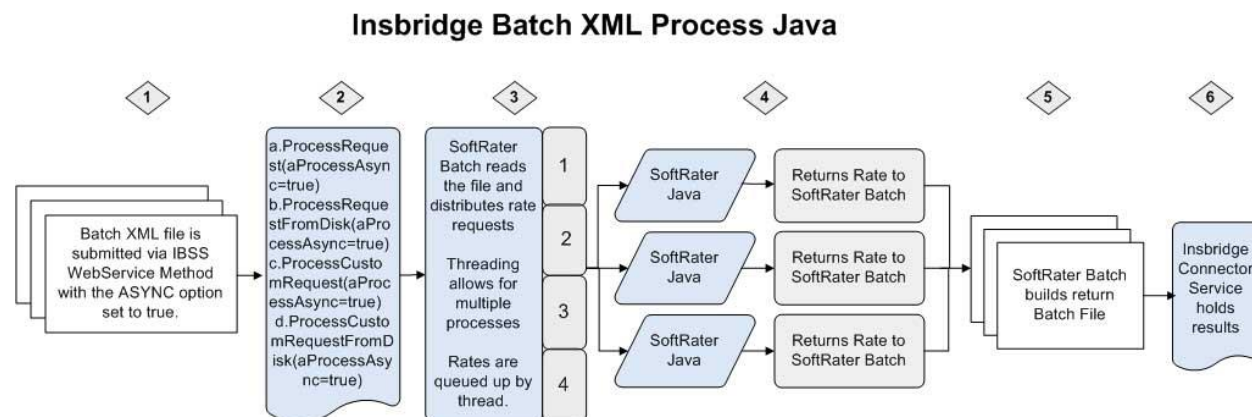
BATCH OVERVIEW

In previous Insbridge releases, batch rating was performed in a Windows environment where multiple XML files were rated at one time with rates returned in a result report. This meant Java users had to have a Windows environment to batch. Java users now can use their Java production environments to batch including using multiple nodes. Batch rating rates all files in the SoftRater DBRuntime database and batch rates from database to database and not to and from files.

Batch is available for IBSS for WebSphere, IBSS for JBoss and IBSS for WebLogic application servers using Oracle 11g and 12c databases only. IBM DB2 and Microsoft SQL Server cannot be used for batching in IBSS.

NOTE: *SoftRater for Java Batch is not available for use with Microsoft SQL Server or IBM DB2 database.*

BATCH PROCESS FOR JAVA



1. Batch XML file is submitted via IBSS WebService Method with the ASYNC option set to true.
 - a. ProcessRequest(aProcessAsync=true) – will submit the message to the JMS Request Queue
 - b. ProcessRequestFromDisk(aProcessAsync=true) – will submit the message to the JMS Request Queue
 - c. ProcessCustomRequest(aProcessAsync=true) – will submit the message to the JMS Request Queue
 - d. ProcessCustomRequestFromDisk(aProcessAsync=true) – will submit the message to the JMS Request Queue
2. The file is read and processed.
3. Rates are queued up by threads. The number of threads that SoftRater uses can be set in Insbridge Connector Service properties. This allows for multiple rates to be processed at the same time.
4. Requests are rated asynchronously.

- a. The requests are distributed for rating.
 - b. The rating environment returns results to the SoftRater Batch. Results are gathered in the order in which they were processed. This may not be the order in which they are in the request file.
- 5. SoftRater Batch builds the result file and places the file in the directory specified in the batch request.
- 6. Batch Rating Result Message is generated.
 - a. When the rating is completed, a results message is placed in the Insbridge Connector Service.
 - b. Insbridge Connector Service holds the results in the JMS Response Queue
 - c. ReceiveAsyncRequest() – will retrieve the message from the JMS Response Queue

OPTIONS

Batch rating for Java offers multiple options when batching large volumes of policies.

Option 1 – Transactional Batch. (Production Option) There are times when you want to rate more than one policy at a time but the files do not exist on disk. Instead, these files exist in memory and you do not want to execute this unit of work serially. Using a configurable option on the SoftRater for Java WebService, you can rate these policies as a batch. We call this a Transactional Batch option. This option uses a configurable “max threads per job” setting via the IBSS.

Option 2 – SoftRater Async Rating. (Production Option) This option accepts a rate request via Web Services and processes the rate request asynchronously using JMS. The system created correlation ID returned is used to poll a Web Service for a response from rating.

Option 3 – SoftRater Node Batch Rating. (Development and Production Option) This option is the most familiar batch rating option offered by Insbridge. This option is available in SoftRater for Windows and is also available in SoftRater for Java. Using a configurable “max threads per job” setting via the IBSS, the SoftRater Engine processes a file from disk (or a directory of files /*.xml) and place the results from rating on disk.

When Batch Rating from RateManager (Development Option), the Insbridge Framework Administrator (IBFA) calls the IBSS via a Web Service.

Option 4 – SoftRater Cluster Batch Rating. (Production Option) When it is essential to process large volumes of records, we suggest you choose the batch enterprise solution to rate your book of business. Unlike the SoftRater Node Batch Rating, which rates files from and to disk, this option utilizes your Oracle 11g or 12c (RAC) database as the store for the input files and the result files. After setting up your cluster on the enterprise application server of your choice (WebLogic, WebSphere, or JBoss), you can register each node on your Insbridge SoftRater Server (IBSS). The registered SoftRater Nodes (JVM(s)) can all be on one machine or spread out over multiple machines. This batch option requires that clusters with multiple machines use an NFS mount to point all nodes to a shared IBSS config file. When all nodes are registered (and the config settings shared), the system can now use every node in the cluster to satisfy the job. With the number of servers, threads and jobs being a configurable option, the solution has the ability to scale vertically and horizontally.

Option 5 – Insbridge ISoftServices Batch Execution. (Production Option) An IBSS SoftLibrary can now be executed as a job using SoftRater Batch. If there is a nightly process that you would like to run using a custom library, the SoftRater Batch for Java can make a call to any SoftLibrary configured as (JNDI

Lookup) library on the IBSS. This job can override the max number of threads, but the thread size cannot be higher than the maximum thread size configured on the IBSS Cluster.

System Requirements

Administrators should be familiar with managing application servers and working with IBSS.

- **Access to the server where IBSS has been installed.**
- **Access to the server where Insbridge has been installed.**
- **Permissions to update files.**
- **Access to the server where the application server resides.**
- **Access to the database where the Oracle database resides.**

DATABASE USER PERMISSIONS

The recommended permissions are required for new tables to be created in the SoftRater (IBSR) database dynamically when or if an SRP (SoftRater Package) in a new project/product is loaded to the SoftRater system. If the recommended permissions are not possible, manual steps will need to be performed.

- It is recommended that db_owner permissions be given to the Insbridge user.
- It is recommended that the Insbridge user be granted, as minimum defaults, the “CONNECT” and “RESOURCE” Roles.

It is recommended that the databases be on separate machines from the applications due to performance and security issues. The Insbridge applications and databases can be tenants in a larger setup.

Database File Location

Batch scripts will need to be run to make the database ready for batch. The DDL scripts for batch can be found on the server where Insbridge was installed in the ...//Oracle/Insbridge/SoftRater folder.

For example: C:\Program Files\Oracle\Insbridge\SoftRater\DDL\Oracle\IBSS Batch

1. Navigate to the ...SoftRater\DDL\Oracle\Batch location on the machine where Insbridge was installed.
2. For new databases, open the IBSS50B20.15.zip file.
3. Run the Schema script first.
4. Run the Procs script next.

5. Open the IBSS50B20.16.zip file
6. Run the Schema script first.
7. Run the Procs script next.

Scripts must be run in order, 15 then 16. This creates a database for batch use. If you are updating an existing SoftRater database, run any SoftRater update script prior to batch scripts.

The Drops script does not need to be run unless instructed by Oracle Support.

Update Notice

If you are updating from a previous SoftRater database, you may need to run a SoftRater database script update. Locate the update scripts on the server where Insbridge was installed. For example:

```
C:\Program Files\Oracle\Insbridge\SoftRater\DDL\Oracle\update
```

Updating from Release 5.2 or earlier: First run oracle_schema_change.sql script then the oracle_schema_change_560.sql script before running the batch update scripts.

Updating from Release 5.4 or later: Run the oracle_schema_change_560.sql script before running the batch update scripts.

Oracle Database for Batch

SoftRater database schema is support on Oracle database platforms:

Versions – 11g, 12c

User Account Requirements

Create Table
Create Index
Query access to "SYS.OBJ\$"

JDBC Driver Class

"oracle.jdbc.driver.OracleDriver"
Using prefix jdbc:oracle:thin:

Oracle Database for Controller Only

An optional choice for the controller database only is an Oracle 11g R2 Express Edition (Oracle XE) database. Oracle Database 11g XE is an entry-level, small-footprint database based on Oracle Database 11g Release 2.

<http://www.oracle.com/technetwork/database/database-technologies/express-edition/downloads/index.html>

INSBRIDGE BATCH 2.0 STORAGE ESTIMATION REFERENCE

Given the tremendous variability in the volume of data stored by the Insbridge Rating process, Oracle Insbridge provides a formula to help calculate the data storage required by the Batch 2.0 process. This calculation is based off the physical data file storage for Insbridge file based rating.

The calculations should be performed per Line of Business and the Sample Data used for each Line of Business should be known to be representative of that Line of Business.

Line of Business Sample Data Information

Input XML files	A Sample Set of Policy XML files. This sample should represent your forecasted business.
Input XML file size	Total Physical storage size at the operating system level for the Input XML files. This number should be in bytes.
Sample Number of Policies	Number of Policies included in the Input XML files.
Output XML files	A Sample set of Rating XML Results files (Rating Results.) This sample should represent your forecasted business.
Output XML file size	Total Physical storage size at the operating system level for the Output XML files. This number should be in bytes.
Sample Number of Ratings	Number of Rating Results included in Output XML files.

Line of Business Forecasts

Forecasted Number of Policies per day	Number of policies to be loaded into the Batch 2.0 database per day.
Forecasted Number of Ratings per day	Number of Rating Results to be loaded into the Batch 2.0 database per day.
Input Retention Duration	Number of days a policy is expected to be kept in the database before being purged.
Rating Result Retention Duration	Number of days a Rating result is expected to be kept in the database.

Line of Business Calculations

Average Policy size	$(\text{Input XML file size}) / (\text{Sample Number of Policies})$
Average Rating Result size	$(\text{Output XML file size}) / (\text{Sample Number of Ratings})$
Input Storage per day	$(\text{Forecasted Number of Policies per day}) \times (\text{Average Policy size})$
Output Storage per day	$(\text{Forecasted Number of Ratings per day}) \times (\text{Average Rating Result size})$
Input Storage estimation	$(\text{Input Storage per day}) \times (\text{Input Retention Duration})$
Output Storage estimation	$(\text{Output Storage per day}) \times (\text{Rating Result Retention Duration})$
Approximate Line of business Database Size	$(\text{Input Storage estimation}) + (\text{Output Storage estimation})$ Standard conversions may be used to represent this number in Megabytes...etc. (For Megabytes please divide by 1,048,576)

Please Note: If the retention policy is rolling two months as opposed to a moving window then the Database Size should be doubled.

STEPS TO BE PERFORMED TO ALLOW FOR BATCH

There are multiple areas that require setup to allow for batch.

In the Insbridge Installation Server:

- Locate the Batch update scripts and locate the SoftRater database update scripts. The scripts can be found on the server where Insbridge was installed:
 - Batch scripts are in the...\Oracle\Insbridge\SoftRater\DDL\Oracle\IBSS Batch folder.
 - Update scripts are in the...\Oracle\Insbridge\SoftRater\DDL\Oracle\update folder

In Oracle Database:

- Batch update scripts must be run against an existing Oracle database or a new database can be created exclusively for batch.
- A DBRuntime database for every schema you want to add DBruntime tables to.

In IBSS:

- A controller Oracle Database must be added. You can use a one controller to many DBruntime configuration.
- Email must be configured to accept and send success and failure messages.
- JMS properties must be entered.

In the Application Server:

The application server being used also has a setup.

- **WebSphere -**
 - Setup JMS Queue by creating:
 - Bus and Members
 - Destination
 - Queue Connection Factory
- **WebLogic -**
 - Setup JMS Queue by creating:
 - JMS Server
 - JMS Module
 - Subdeployments
 - Connection Factory
 - JMS Queue
- **JBoss -**
 - Setup JMS Queue by creating:
 - JMS Queue
 - Connection Factory

CONTROLLER ENVIRONMENT AND BATCH RATING

Batch rating requires a Controller environment entry. The controller manages the requests from the system. This is not the controller used by the IBFA. Only Oracle database connections can be used.

Controller

The Controller environment is a SoftRater database. This can be a standalone database, used strictly for managing batch ratings, or it can be a shared SoftRater database. If the Controller environment is shared, an entry must be made as a regular environment as well.



The screenshot shows a web browser window titled "-- Webpage Dialog" displaying the "SoftRater Server" options page. The page has a blue header with the "SoftRater Server" logo and a "close" link. Below the header, the "Options" section prompts the user to "Please enter/update your IBSS Option information." The form contains the following fields and values:

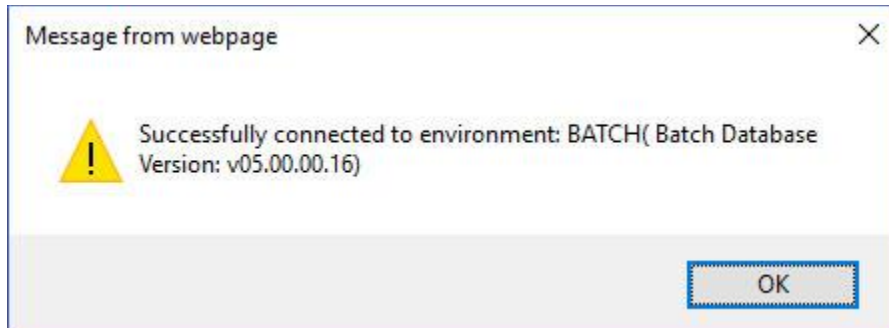
- Subscriber: System (dropdown)
- Environment Name: CONTROLLER (text input)
- Environment Type: DSN (dropdown)
- Database Server: 10.100.10.100 (text input)
- Database Port: 1521 (text input)
- Query Block: (empty text input)
- Database Name: ord (text input)
- Schema name: IBSR_BATCH (text input)
- Database User Id: sa (text input)
- Database Password: (masked with dots and a show/hide icon)
- Provider Type: ORACLE (dropdown)
- Database Type: SoftRater (dropdown)
- Data Dir: (empty text input)
- Default Environment: False (dropdown)

At the bottom of the form, there are four buttons: "Save", "Delete", "Test Connection!", and "Close".

No data directory is used for a Controller environment. The Controller environment cannot be default. The controller connection must be on the same database server as the customer that you are running. The Subscriber will need to look at the controller. The controller connection handles the tasks and the services and logs.

When you batch rate from the database to the database, it must all be Oracle. The schemas can be different but it must be the same database. The controller must be Oracle.

When testing the connection, the Batch Database Version should return as v05.00.00.16



ORACLE DATABASE UPDATES

Log into the database as sysdba and create the user Controller. If updating from an existing Oracle database, run the SoftRater database update scripts. Then login as Controller and run the batch scripts. If you are creating a new batch database, you only need to login as Controller and run the batch scripts.

For safety, create a backup before running any scripts. Update and batch scripts are located on the server where Insbridge was installed. For example:

C:\Program Files\Oracle\Insbridge\SoftRater\DDL\Oracle\

1) Database Installation Requirements:

- a. The Oracle database instance must be up and running. This database does not have to be on the same system where you will execute the database schema scripts.
- b. SQL Developer or equivalent tool for executing Oracle PL/SQL. The tool must be able to connect and authenticate with the appropriate user on an Oracle 11g release 2 database instance or Oracle 12c database instance.
- c. If you are updating an existing Oracle database, you will need file system access to the provided installation SQL files. Run any SoftRater update scripts prior to running batch scripts.

Updating an existing SoftRater database from Release 5.2 or earlier: First run oracle_schema_change.sql first then the oracle_schema_change_560.sql update script before running the batch update scripts.

Updating an existing SoftRater database from Release 5.4 or later: Run the oracle_schema_change_560.sql update script before running the batch update scripts.

After running SoftRater database update scripts, run batch scripts. If you are creating a database for batch use only, you only need to run batch scripts.

Updating an existing database from Release 5.0.1 or earlier: First run IBSS50B20.15 the Schema.sql and IBSS50B20.15 Procs.sql scripts. Then run the IBSS50B20.16 Schema.sql and IBSS50B20.16 Procs.sql scripts.

Updating an existing database from Release 5.1 or later: Run the IBSS50B20.16 Schema.sql and IBSS50B20.16 Procs.sql scripts.

To create a batch only database: First run the IBSS50B20.15 the Schema.sql and IBSS50B20.15 Procs.sql scripts. Then run the IBSS50B20.16 Schema.sql and IBSS50B20.16 Procs.sql scripts.

- d. An Insbridge Oracle Database User satisfying the requirements specified in this document.

2) Insbridge Oracle Database User Requirements:

- a. Password Authentication on the appropriate Oracle database
- b. Be granted the CONNECT role
- c. Be granted the RESOURCE role
- d. Be granted the CREATE ANY VIEW system privilege
- e. Must have sufficient or QUOTA UNLIMITED on the user's default tablespace, or the UNLIMITED TABLESPACE system privilege

3) Database Schema Creation steps:

- a. If the target of this installation is an existing user/schema then perform a complete database backup.

NOTE: *Proceeding without a database recovery method for an existing user/schema is not recommended.*

- b. Connect to the chosen database using the appropriate user.
- c. If using an existing SoftRater database, run SoftRater update scripts.
- d. Locate and execute the file IBSS50B20.15 Schema.sql first. When that script is finished, run the IBSS50B20.15 Procs.sql next. Then run the IBSS50B20.16 Schema.sql and IBSS50B20.16 Procs.sql scripts. You do not need to run the IBSS50B20.15 Drops.sql script unless instructed by Oracle Support.
- e. If no errors are logged then continue to the next step, otherwise proceed to Error handling.

Error Handling

- f. Evaluate any errors.
- g. Correct the errors where possible.
- h. If all errors are correctable then proceed to Error Recovery.

Error Recovery

Since the Database User's schema has been left in an unknown state, follow these recovery steps:

- i. Restore the database to a state prior to this installation.
- j. Ensure that the Oracle Database User satisfies the Insbridge Database User Requirements portion of this document.

NOTE: Prior Insbridge user installation did not require the CREATE ANY VIEW system privilege. *Confirm that this system privilege requirement is met.*

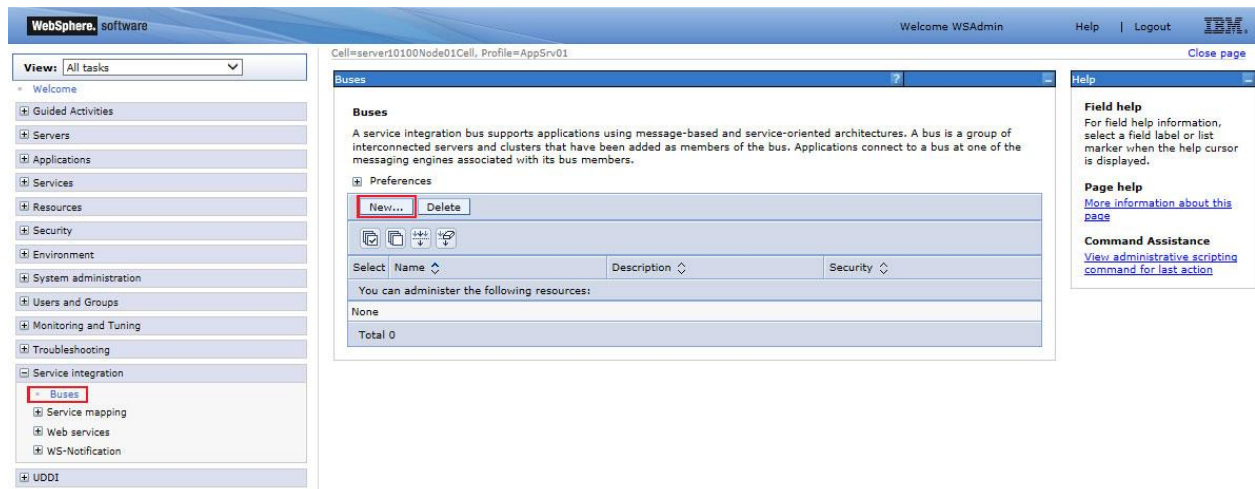
- k. Start the Database Schema Creation process over and repeat this process until all correctable errors have been cleared.

CONFIGURING PROCESS CONFIGURATION DETAILS

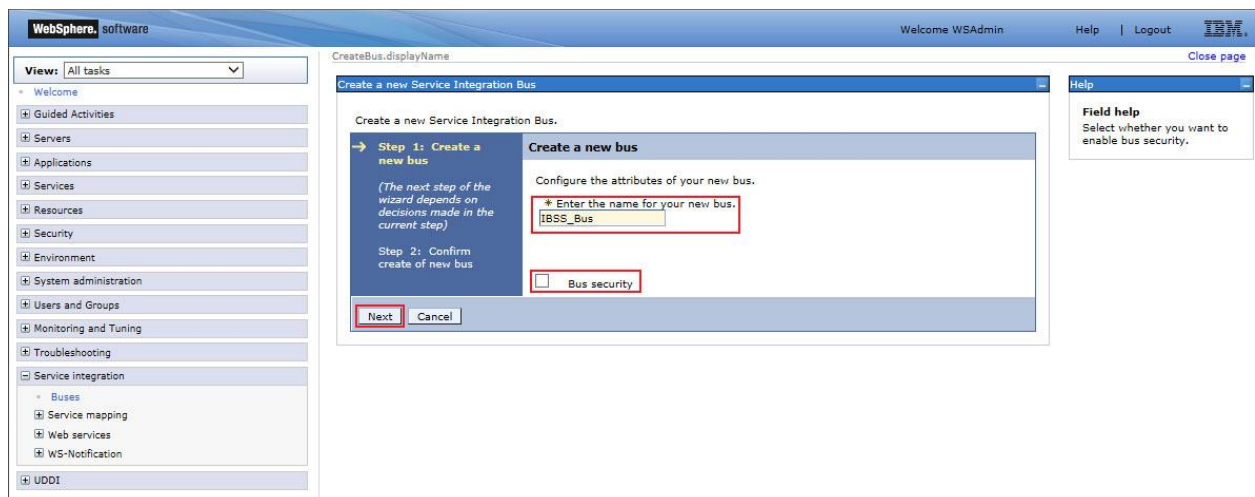
The first step is setting up a JMS Queue. In order to create a JMS Queue in WebSphere, Bus and members, a Destination, and a Queue Destination Factory must be created.

Create Bus and Members:

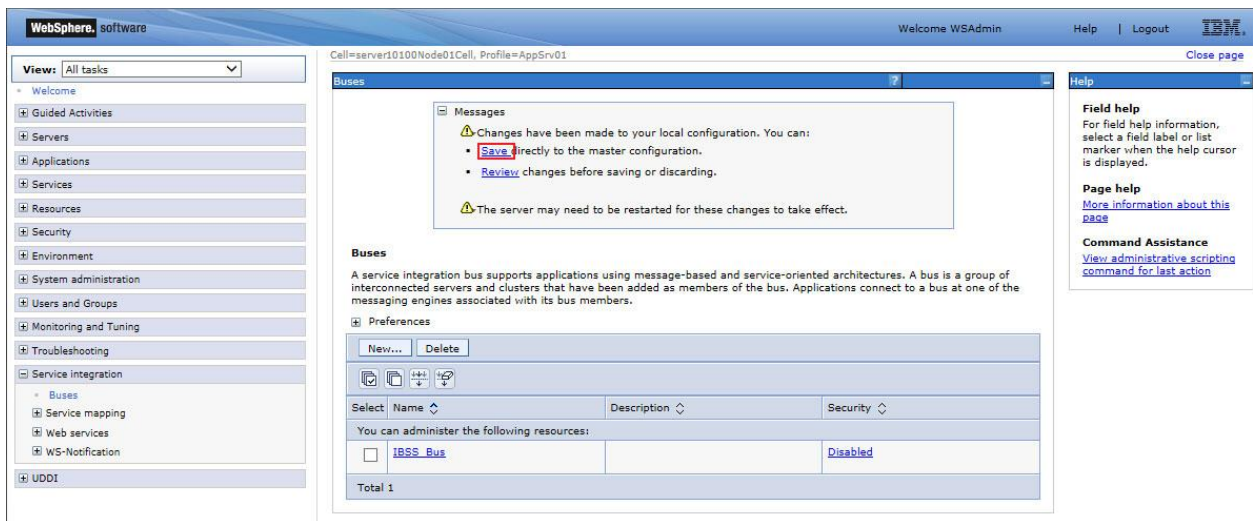
1. Navigate to Service integration > Buses



2. Click **New**. A separate screen is displayed.
3. Enter a Bus name of your choice, for example IBSS_Bus. Do not check the Security, it is not required.

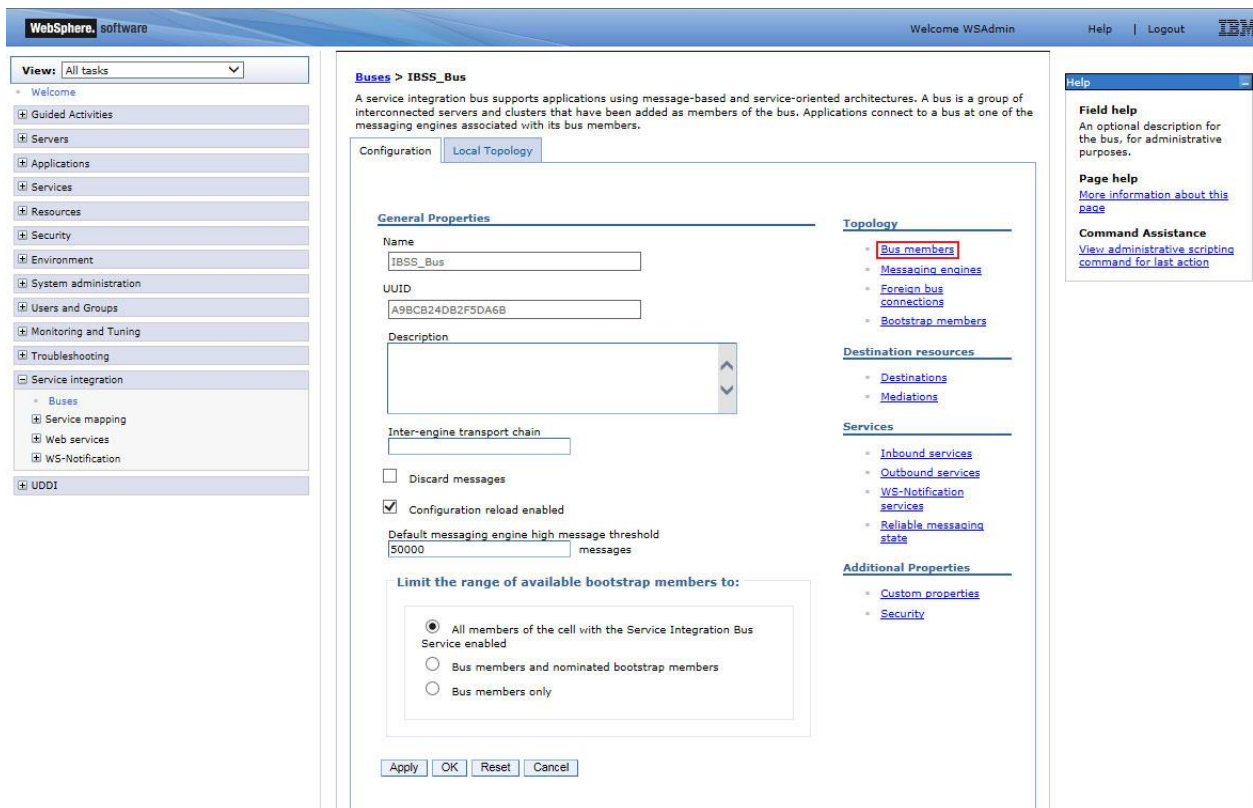


4. Click Next. Confirm the creation of a new bus and click Finish.

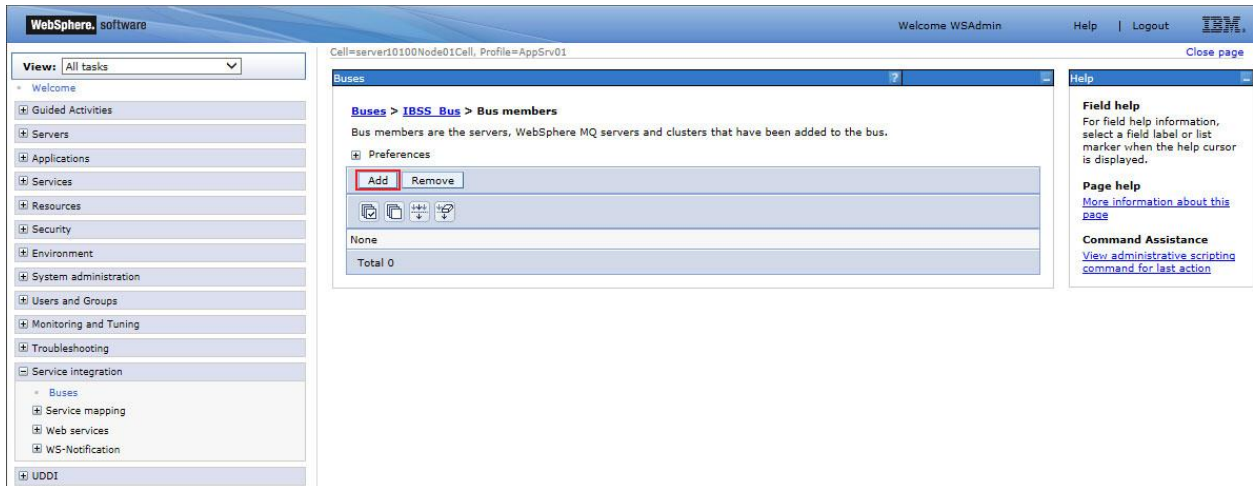


5. Save the Changes.

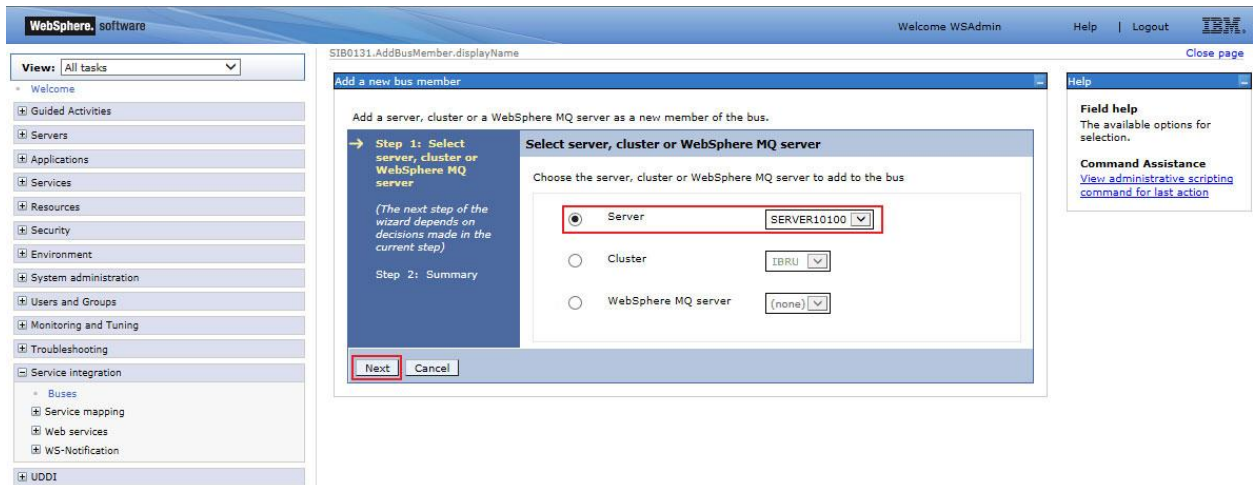
6. Bus members must be entered next. Click the Bus name to open the configuration screen.



7. Click on Bus members. A separate screen is displayed.



8. Click **Add**. A separate screen is displayed.



9. Select the server where you want to add the bus and click **Next**.

10. Leave all the values as default in the steps that follow.

11. On the Summary screen, click **Finish**.

12. Save the changes.

Create Destination:

A JMS Destination is created next. There should always be a destination Queue for every JMS queue.

1. Click the Bus name to open the configuration screen.
2. Click on Destinations under Destination Resources. A separate screen is displayed.

The screenshot displays the WebSphere software WSAdmin console. On the left is a navigation pane with a 'View:' dropdown set to 'All tasks'. The main content area is titled 'Buses > IBSS_Bus' and includes a description of a service integration bus. Below this, there are tabs for 'Configuration' and 'Local Topology'. The 'Configuration' tab is active, showing various property sections: 'General Properties' (Name: IBSS_Bus, UUID: A9BCB24DB2F5DA6B, Description: empty), 'Inter-engine transport chain' (empty), 'Discard messages' (unchecked), 'Configuration reload enabled' (checked), 'Default messaging engine high message threshold' (50000), and 'Limit the range of available bootstrap members to:' (radio buttons for 'All members of the cell with the Service Integration Bus Service enabled', 'Bus members and nominated bootstrap members', and 'Bus members only'). To the right of these sections are links for 'Topology', 'Destination resources' (with 'Destinations' highlighted), 'Services', and 'Additional Properties'. A right-hand sidebar contains 'Field help', 'Page help', and 'Command Assistance' sections.

3. On the Destination Screen, click New.

The screenshot shows the IBM WebSphere software interface. The left sidebar contains a 'Views' dropdown set to 'All tasks' and a list of navigation options: Welcome, Guided Activities, Servers, Applications, Services, Resources, Security, Environment, System administration, Users and Groups, Monitoring and Tuning, Troubleshooting, Service Integration (with sub-items Buses, Service mapping, Web services, WS-Notification), and UDDI. The main content area is titled 'Buses > IBSS_Bus > Destinations'. It includes a description of bus destinations and a 'Preferences' section with buttons for 'New...', 'Delete', 'Mediate', and 'Unmediate'. The 'New...' button is highlighted with a red box. Below this is a table with columns: Select, Identifier, Bus, Type, Description, and Mediation. The table lists two resources: 'Default.Topic.Space' and '_SYSTEM.Exception.Destination.server10100Node01.server1-IBSS_Bus'. The 'Total' row shows 2. The right sidebar contains 'Field help', 'Page help', and 'Command Assistance' links.

4. Select Destination Type -> Queue and click Next.

The screenshot shows the 'Create new destination' dialog in the IBM WebSphere software interface. The dialog has a title bar 'Create new destination' and a subtitle 'Create a new destination on this bus.' Below this is a section titled 'Select destination type' with four radio button options: 'Queue' (selected and highlighted with a red box), 'Topic space', 'Alias', and 'Foreign'. At the bottom of the dialog are 'Next' and 'Cancel' buttons, with the 'Next' button highlighted with a red box. The background shows the same WebSphere interface as the previous screenshot.

5. Enter IBSS_JMS_REQUEST_QUEUE for the Destination in the Identifier field and click Next.

The screenshot shows the 'Create new queue' wizard in the WebSphere software interface. The left sidebar contains a navigation tree with categories like 'Guided Activities', 'Servers', 'Applications', 'Services', 'Resources', 'Security', 'Environment', 'System administration', 'Users and Groups', 'Monitoring and Tuning', 'Troubleshooting', 'Service integration', and 'UDDI'. The main panel is titled 'Create new queue' and contains a progress indicator with three steps: 'Step 1: Set queue attributes' (selected), 'Step 2: Assign the queue to a bus member', and 'Step 3: Confirm queue creation'. The 'Set queue attributes' section has a text input field for 'Identifier' containing 'IBSS_JMS_REQUEST_QUEUE' and a 'Description' text area. A 'Next' button is highlighted with a red box. A 'Help' sidebar on the right provides 'Field help' for the Identifier field.

6. Select the Bus Member that was created earlier from the dropdown and click Next.

The screenshot shows the 'Create new queue' wizard in the WebSphere software interface, now at 'Step 2: Assign the queue to a bus member'. The progress indicator shows 'Step 2' as the active step. The main panel has a section titled 'Assign the queue to a bus member' with a description: 'Assign the queue to a bus member that will store and process the messages for the queue.' Below this is a 'Bus member' dropdown menu showing 'Node=server10100Node01:Server=server1'. A 'Next' button is highlighted with a red box. The 'Previous' and 'Cancel' buttons are also visible. The 'Help' sidebar on the right provides 'Field help' and 'Command Assistance' links.

7. Click Finish.
8. Back on the Destination Screen, click New. A queue must be created for reply.
9. Select Destination Type -> Queue and click Next.
10. Enter IBSS_JMS_REPLYTO_QUEUE for the Destination in the Identifier field and click Next.
11. Select the Bus Member that was created earlier from the dropdown and click Next.
12. Click Finish.
13. Save the changes.

The two IBSS Queue Destinations should be listed.

Create Queue Connection Factory:

1. Navigate to Resources -> JMS -> Queue connection factories.
2. On the Queue Connection factories screen, select the Server that was used in the creation of the bus member.

NOTE: If the application is to be deployed to a cluster, select the 'Node' in the dropdown when creating a Queue Connection Factory.

A Queue Connection Factory should be created for a server per node in the cluster in order for the Queue Connection Factory to be available across the cluster. By creating it in the Node level, the Queue Connection Factory will be shared across all the other Nodes in the Cluster.

The screenshot displays the WebSphere software administration console. The left sidebar shows the navigation tree with 'Queue connection factories' highlighted under 'JMS providers'. The main content area shows the 'Queue connection factories' page. The 'Scope' dropdown is set to 'Node=server10100Node01, Server=server1'. A 'New' button is highlighted in the 'Preferences' section.

Queue connection factories

A queue connection factory is used to create connections to the associated JMS provider of the JMS queue destinations, for point-to-point messaging.

Scope: Cell=server10100Node01Cell, Node=server10100Node01, Server=server1

Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, [see the scope settings help](#).

Node=server10100Node01, Server=server1

Preferences

New Delete

Select	Name	JNDI name	Provider	Description	Scope
You can administer the following resources:					
None					
Total 0					

3. Click New. A separate screen is displayed.

4. Select **Default Messaging Provider** and click OK.

The screenshot shows the WebSphere software administration console. The left-hand navigation pane is expanded to 'Resources' > 'JMS' > 'Queue connection factories'. The main content area is titled 'Queue connection factories > Default messaging provider > New...'. It contains a 'Configuration' tab with the following sections:

- General Properties:**
 - Administration:**
 - Scope: Node:server10100Node01,Server=server1
 - Provider: Default messaging provider
 - Name:** Queue_Connection_FactoryX (highlighted with a red box)
 - JNDI name:** jms/ConnectionFactory (highlighted with a red box)
 - Description: (empty text area)
 - Category: (empty text field)
- Connection:**
 - Bus name:** IBSS_Bus (highlighted with a red box)
 - Target: (empty text field)
 - Target type: Bus member name (dropdown menu)
 - Target significance: Preferred (dropdown menu)
 - Target inbound transport chain: (empty text field)
 - Provider endpoints: (empty text area)

On the right side, there is a 'Help' pane with 'Field help' and 'Page help' sections. The 'Page help' section contains a link 'More information about this page'.

On the Configuration screen enter:

- **Name:** IBSS_Queue_Connection_Factory
- **JNDI Name:** jms/ConnectionFactory
- **Connection Bus Name:** IBSS
- Click OK and Save.

5. On the Queue Connection Factories screen, the new connection will be listed.

WebSphere software

Welcome WSAdmin Help Logout IBM

Cell=server10100Node01Cell, Profile=AppSrv01

View: All tasks

- Welcome
- Guided Activities
- Servers
- Applications
- Services
- Resources
 - Schedulers
 - Object pool managers
 - JMS
 - JMS providers
 - Connection factories
 - Queue connection factories
 - Topic connection factories
 - Queues
 - Topics
 - Activation specifications
 - JDBC
 - Resource Adapters
 - Asynchronous beans
 - Cache instances
 - Mail
 - URL
 - Resource Environment
- Security
- Environment
- System administration
- Users and Groups
- Monitoring and Tuning
- Troubleshooting
- Service integration
- UDDI

Queue connection factories

A queue connection factory is used to create connections to the associated JMS provider of the JMS queue destinations, for point-to-point messaging.

Scope: Cell=**server10100Node01Cell**, Node=**server10100Node01**, Server=**server1**

Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, [see the scope settings help](#).

Node=server10100Node01, Server=server1

Preferences

New Delete

Select	Name	JNDI name	Provider	Description	Scope
<input type="checkbox"/>	IBSS Queue Connection Factory	jms/ConnectionFactory	Default messaging provider	Connection Factory for batch	Node=server10100Node01,Server=server1

Total 1

Field help
For field help inform select a field label or marker when the hel is displayed.

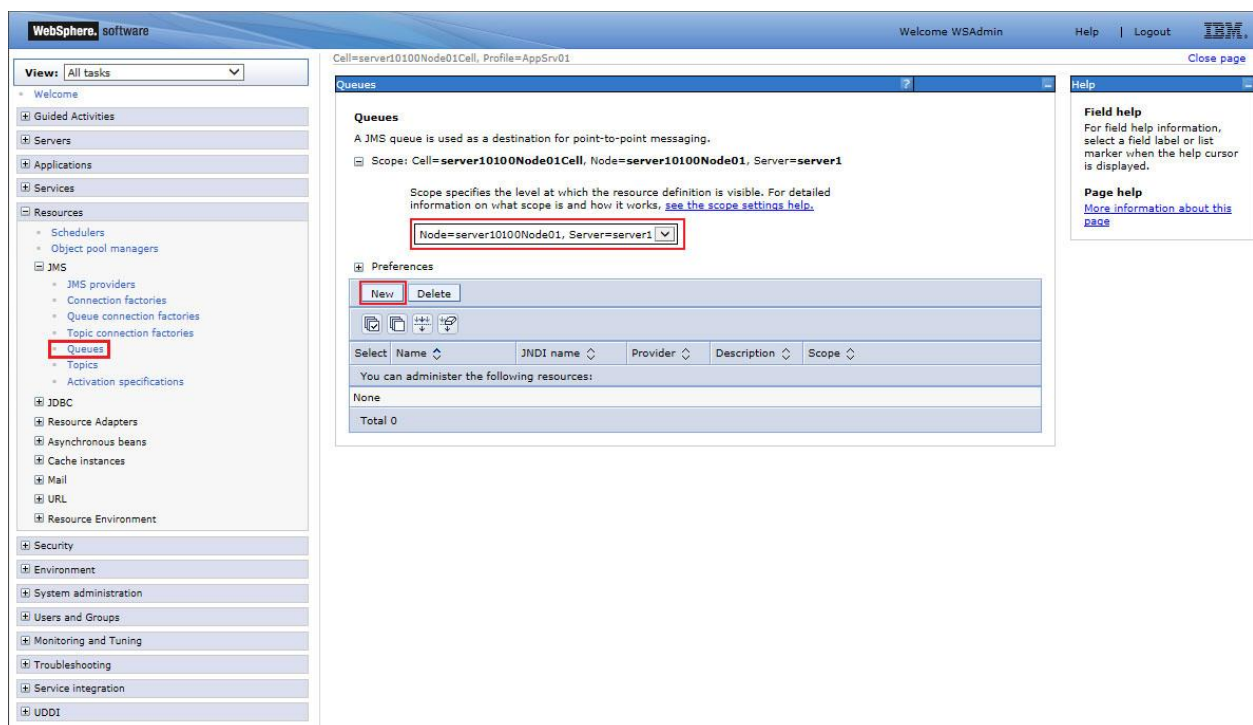
Page help
[More information abs page](#)

Creating Queues:

After creating Queue Connection Factory, there are two queues that need to be created.

- **Request Queue**
- **ReplyToQueue**

1. Navigate to Resources -> JMS -> Queues.
2. On the Queues screen, select the Server that was used in the creation of the Queue Connection Factory.



3. Click New. A separate screen is displayed.
4. Select Default messaging provider and click OK.
5. On the Configuration Screen, enter the details of the queue.

WebSphere, software

Welcome WSAdmin Help Logout

Cell=server10100Node01Cell, Profile=AppSrv01

Views: All tasks

- Welcome
- Guided Activities
- Servers
- Applications
- Services
- Resources
 - Schedulers
 - Object pool managers
 - JMS
 - JMS providers
 - Connection factories
 - Queue connection factories
 - Topic connection factories
 - Queues
 - Topics
 - Activation specifications
 - JDBC
 - Resource Adapters
 - Asynchronous beans
 - Cache instances
 - Mail
 - URL
 - Resource Environment
- Security
- Environment
- System administration
- Users and Groups
- Monitoring and Tuning
- Troubleshooting
- Service integration
 - Buses
 - Service mapping
 - Web services
 - WS-Notification
- UDDI

Queues

Queues > Default messaging provider > New...

A JMS queue is used as a destination for point-to-point messaging. Use JMS queue destination administrative objects to manage JMS queues for the default messaging provider.

Configuration

General Properties

Administration

Scope
Node=server10100 Node01,Server=server1

Provider
Default messaging provider

* Name
IBSS_Request_Queue

* JNDI name
- jms/RequestQueue

Description

Connection

Bus name
IBSS_Bus

* Queue name
IBSS_JMS_REQUEST_QUEUE

Delivery mode
Application

Time to live
milliseconds

Priority

Advanced

Read ahead
Inherit from connection factory

Message control across multiple queue points (supported from WebSphere Application Server V7 onwards)

☐ Restrict messages to the local queue point if a queue point is configured on the connected messaging engine

Control across multiple queue points per MessageProducer

Local queue point preference

☒ Prefer to send messages to a local queue point

☐ Do not prefer a local queue point over other queue points

Message affinity across queue points

☐ Send all messages to the same queue point

☒ Messages may be sent to different queue points

Control across multiple queue points per MessageConsumer or QueueBrowser

Message visibility

☒ Only messages on a single queue point are visible

☐ Messages on all queue points are visible

Apply OK Cancel

- **Name** - Name for the Request Queue for example **IBSS_Request_Queue**
- **JNDI Name** - **.jms/RequestQueue**. The exact JNDI Name should be same as entered here.
- **Bus name** - Select the Bus name that was used for the Queue Connection.
- **Queue name** - Select the destination that was created for the Queue Connection Factory.

The rest of the fields can be left to defaults.

6. Click **Apply**.

7. **Save** the changes.
8. Repeat the same steps for creating a **jms/ReplyToQueue**, with the values:

The screenshot shows a web-based configuration form for creating a JMS queue. It is divided into two main sections: a top section for general queue properties and a bottom section titled "Connection" for specifying the connection details.

Top Section:

- * Name:** A text field containing "IBSS_ReplyToQueue".
- * JNDI name:** A text field containing "jms/ReplyToQueue".
- Description:** A large, empty text area with a vertical scrollbar on the right.

Connection Section:

- Bus name:** A dropdown menu with "IBSS_Bus" selected.
- * Queue name:** A dropdown menu with "IBSS_JMS_REPLYTO_QUEUE" selected.

- **Name** - Name for the Request Queue for example **IBSS_ReplyToQueue**
- **JNDI Name** - **jms/ReplyToQueue**. The exact JNDI Name should be same as entered here.
- **Bus name** - Select the Bus name that was used for the Queue Connection.
- **Queue name** - Select the destination that was created for the Queue Connection Factory.

The rest of the fields can be left to defaults.

9. Click **Apply**.
10. **Save** the changes.

11. After successfully creating the Request Queue and the Reply to Queue, the Queues list will be listed.

The screenshot displays the WebSphere software interface. On the left is a navigation pane with a 'View:' dropdown set to 'All tasks'. The 'Resources' section is expanded, showing a tree view with categories like Schedulers, Object pool managers, JMS, JDBC, Resource Adapters, Asynchronous beans, Cache instances, Mail, URL, and Resource Environment. The 'JMS' category is selected. The main content area is titled 'Queues' and shows a summary of JMS queues. It includes a 'Scope' dropdown set to 'Node=server10100Node01, Server=server1'. Below this is a 'Preferences' section with 'New' and 'Delete' buttons. A table lists the queues, with columns for 'Select', 'Name', 'JNDI name', 'Provider', 'Description', and 'Scope'. The table contains two entries: 'IBSS_ReplyTo_Queue' and 'IBSS_Request_Queue'. A 'Total 2' summary is at the bottom of the table. On the right, a 'Help' pane is visible with 'Field help' and 'Page help' sections.

WebSphere, software

Welcome WSAdmin Help Logout

Cell=server10100Node01Cell, Profile=AppSrv01

View: All tasks

Resources

- Schedulers
- Object pool managers
- JMS
 - JMS providers
 - Connection factories
 - Queue connection factories
 - Topic connection factories
 - Queues
 - Topics
 - Activation specifications
- JDBC
- Resource Adapters
- Asynchronous beans
- Cache instances
- Mail
- URL
- Resource Environment

Queues

A JMS queue is used as a destination for point-to-point messaging.

Scope: Cell=server10100Node01Cell, Node=server10100Node01, Server=server1

Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, [see the scope settings help](#).

Node=server10100Node01, Server=server1

Preferences

New Delete

Select	Name	JNDI name	Provider	Description	Scope
<input type="checkbox"/>	IBSS_ReplyTo_Queue	jms/ReplyToQueue	Default messaging provider	Reply To Queue for batch	Node=server10100Node01,Server=server1
<input type="checkbox"/>	IBSS_Request_Queue	jms/RequestQueue	Default messaging provider	Request Queue for batch	Node=server10100Node01,Server=server1

Total 2

Field help

For field help information, select a field label or list marker when the help cursor is displayed.

Page help

[More information about this page](#)

Troubleshooting

If you encounter issues while deploying the .EAR file you may want to try these measures to correct the problem.

Increase WebSphere JVM Memory:

The default WebSphere Java Virtual Machine memory may not be enough. To avoid a “**java.lang.OutOfMemory**” exception, the JVM memory can be expanded on the WebSphere Application Server.

Note: Before modifying the heap size, ensure that the system has enough physical memory to support a Java Virtual Machine (JVM). The recommendation is for 1024 for “Initial heap size” and 2048 for “Maximum heap size.”

For Application Server:

1. On WebSphere web console, select Servers -> Server Types -> WebSphere application servers -> YOUR SERVER -> Java and Process Management -> Process definition.

Java and Process Management is an expandable side menu.

The screenshot displays the WebSphere Administration Console interface. On the left is a navigation tree with categories like Servers, Applications, Services, Resources, Security, Environment, System administration, Users and Groups, Monitoring and Tuning, Troubleshooting, Service integration, and UDDI. The 'Servers' category is expanded, showing 'WebSphere application servers', 'WebSphere MQ servers', and 'Web servers'. The main content area is titled 'Application servers > server1' and contains tabs for 'Runtime' and 'Configuration'. The 'Configuration' tab is active, showing various settings. Under 'General Properties', the 'Name' is 'server1' and 'Node name' is 'server10100 Node01'. The 'Parallel start' checkbox is checked. Under 'Server-specific Application Settings', the 'Classloader policy' is set to 'Multiple' and the 'Class loading mode' is 'Classes loaded with parent class loader first'. On the right side of the configuration area, there are expandable sections for 'Container Settings', 'Applications', 'Server messaging', and 'Server Infrastructure'. The 'Server Infrastructure' section is expanded, showing 'Java and Process Management' with sub-items 'Class loader', 'Process definition' (highlighted with a red box), and 'Process execution'. Other sub-items include 'Administration' and 'Java SDKs'. A 'Help' sidebar on the far right provides field and page help information.

2. In the Additional Properties section, select Java Virtual Machine

The screenshot displays the WebSphere software interface for configuring an application server. The left sidebar shows a navigation tree with categories like Guided Activities, Servers, Applications, Services, Resources, Security, Environment, System administration, Users and Groups, Monitoring and Tuning, Troubleshooting, Service integration, and UDDI. The main content area is titled 'Application servers > server1 > Process definition'. It includes a 'Configuration' tab and a 'General Properties' section with fields for Executable name, Executable arguments, Start command, Start command arguments, Stop command, and Stop command arguments. The 'Additional Properties' section on the right lists several options, with 'Java Virtual Machine' highlighted by a red rectangular box. Other options include Environment Entries, Process execution, Process logs, and Logging and tracing. The bottom of the configuration area contains buttons for Apply, OK, Reset, and Cancel.

WebSphere. software

Welcome WSAdmin Help Logout IBM.

Cell=server10100Node01Cell, Profile=AppSrv01

View: All tasks

Guided Activities

Servers

- Server Types
 - WebSphere application servers
 - WebSphere MQ servers
 - Web servers

Applications

Services

Resources

Security

Environment

System administration

Users and Groups

Monitoring and Tuning

Troubleshooting

Service integration

UDDI

Application servers

Application servers > server1 > Process definition

Use this page to configure a process definition. A process definition defines the command line information necessary to start or initialize a process.

Configuration

General Properties

Executable name

Executable arguments

Start command

Start command arguments

Stop command

Stop command arguments

Working directory

{USER_INSTALL_ROOT}

Executable target type

JAVA_CLASS

Executable target

com.ibm.ws.runtime.WsServer

Additional Properties

- Java Virtual Machine
- Environment Entries
- Process execution
- Process logs
- Logging and tracing

Field help

Specifies the executable name of the process.

Page help

More information about this page

Apply OK Reset Cancel

3. In General Properties section, scroll down and locate the heap size entries. Enter **1024** for “Initial heap size” and **2048** for “Maximum heap size”.

The screenshot shows the WebSphere software administration console. On the left is a navigation pane with categories like Servers, Applications, Services, Resources, Security, Environment, System administration, Users and Groups, Monitoring and Tuning, Troubleshooting, Service integration, and UDDI. The main content area is titled 'General Properties' and contains various configuration options. The 'Initial heap size' is set to 1024 MB and the 'Maximum heap size' is set to 2048 MB. Red boxes highlight these fields, and red text annotations read 'Initial Heap Size = 1024 mb' and 'Maximum Heap Size = 2048 mb'. The 'Apply' and 'OK' buttons are also highlighted with red boxes. Other options visible include 'Verbose class loading', 'Verbose garbage collection', 'Verbose JNI', 'Run HProf', 'HProf Arguments', 'Debug Mode', 'Debug arguments', 'Generic JVM arguments', 'Executable JAR file name', 'Disable JIT', and 'Operating system name'.

4. Click Apply and OK.
5. Make the same changes in all the servers that are a part of the cluster in which the application is to be deployed.
6. When completed, restart the WebSphere service.

For Deployment Manager:

The same process can be set for the deployment manager.

1. On WebSphere web console, select System administration -> Deployment manager -> Java and Process Management -> Process definition.
2. In Additional Properties section, select Java Virtual Machine.
3. In General Properties section scroll down and locate the heap size entries. Enter **1024** for “Initial heap size” and **2048** for “Maximum heap size”.
4. Click Apply and OK.
5. Save the configuration changes.
6. When complete, restart the Deployment Manager.

WebSphere Temp Directory Clean Up:

When upgrading from a previous version, the contents from **temp** directory and **wstemp** directory under the AppServer folder in WebSphere should be deleted before installing the application in WebSphere. This is to avoid any conflicts that may exist between any cached WSDL and the Service Endpoint Interface of the Webservice classes in the application.

You must have access to the server where WebSphere has been installed.

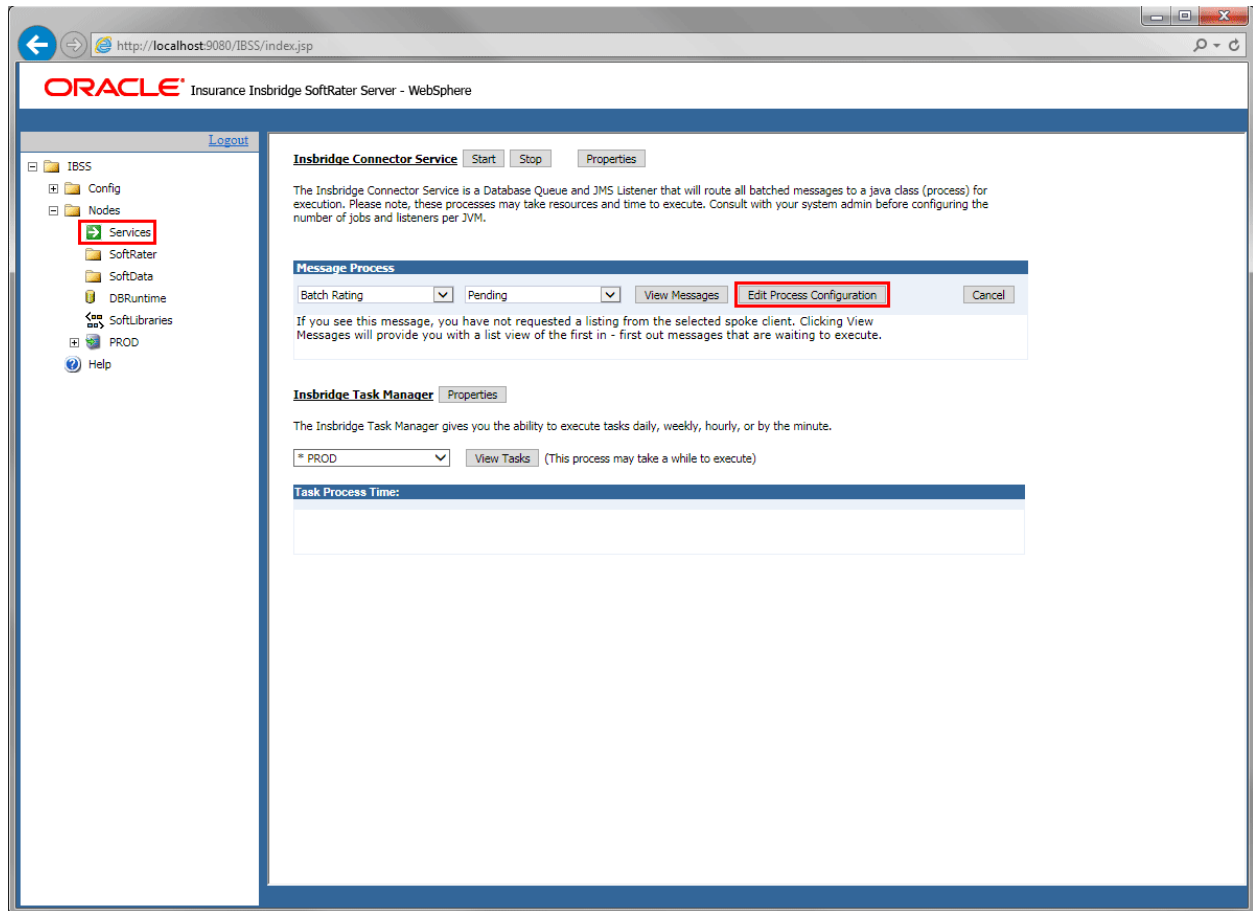
1. On the server where WebSphere was installed locate: **WAS_HOME=<WebSphere Installed Directory>\WebSphere\AppServer**.
2. Remove the contents from the following directories:
 - i. **<WAS_HOME>\profiles\temp**
 - ii. **<WAS_HOME>\profiles\wstemp**
3. A make sure no cached content is used, restart the server. Otherwise, start the DeploymentManager/CellManager, NodeManager and the required Servers of WebSphere.
4. The new IBSS .EAR file can be deployed.

NOTE: *If you are not installing a new IBSS .EAR file, you do not need to clear the temp files.*

UPDATES TO IBSS

Open the IBSS application screen.

1. Locate the Services screen under the Nodes options. IBSS > Nodes > Services.



2. Click Edit Process Configuration. A separate screen is displayed.
3. Enter values for the Inbridge Connector Service.



4. Click Save.

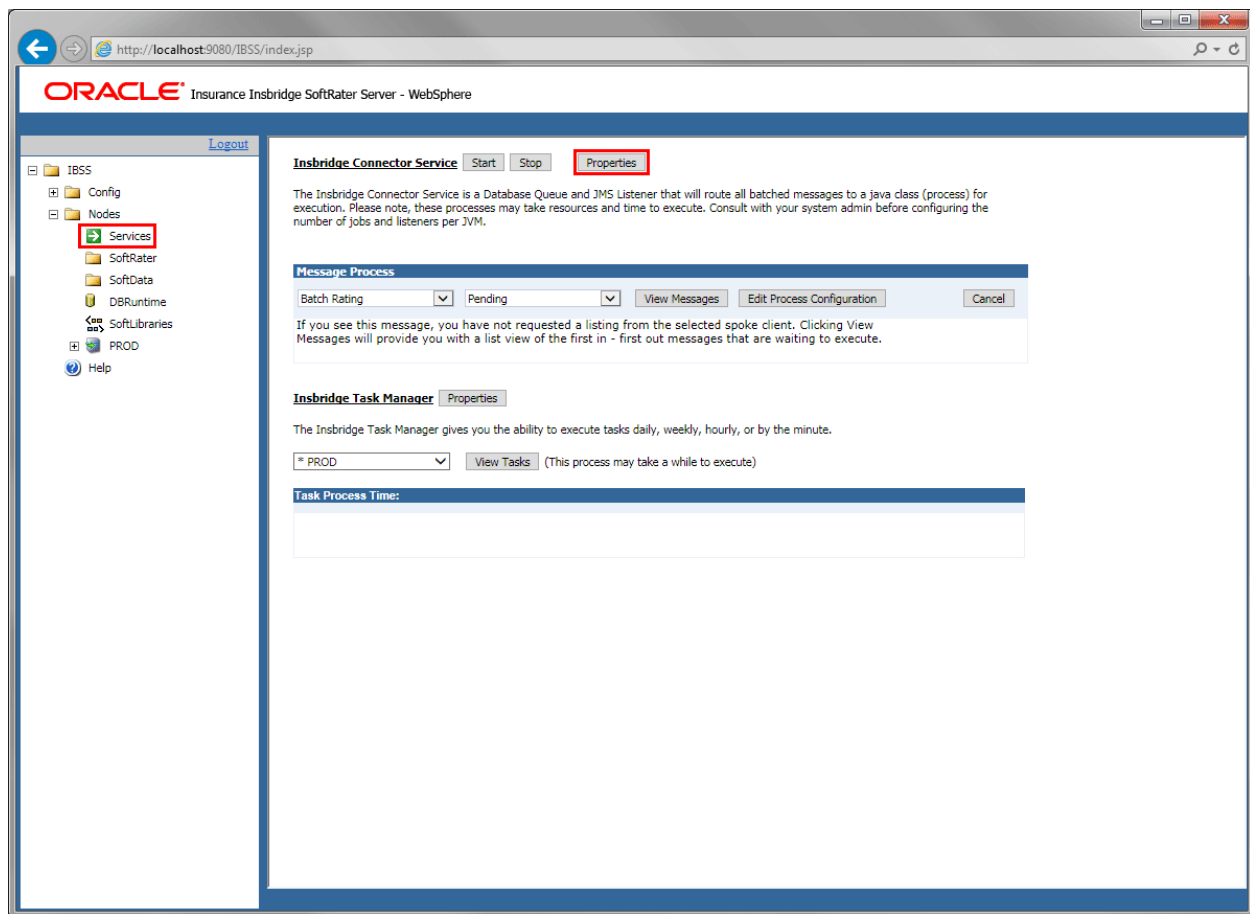
CONFIGURING NOTIFICATION

Notification details need to be configured in order to receive the email response for successful/failed transactions.

Configuring Email on IBSS:

Open the IBSS application screen.

1. Locate the Services screen under the Nodes options. IBSS > Nodes > Services.



2. Click Properties. A separate screen is displayed.
3. Enter values for the Insbridge Connector Service.

-- Webpage Dialog

SoftRater Server

[close](#)

Connector Properties

The Insbridge Connector Service has configurations for the items below.

Maximum Simultaneous Jobs:

Maximum Threads per Job:

The Insbridge Connector Service has the ability to send email notification(s) on success and/or failure of batch processes. Please enter the SMTP information below.

Protocol:

Host:

Port:

User:

Password:

Email Type: ☒ HTML ☐ Text

The Insbridge Connector Service has the ability to process offline processes using JMS. Please enter the Queue and ReplyTo Queue information below.

Queue Location:

ReplyTo Location:

Connection Factory:

Context Factory:

Provider Url:

- **Protocol** – SMTP or SMTPS or JNDI
- **Host** – email host
- **Port** – port used
- **User** – Login id
- **Password** – Password
- **Email Type** – HTML or Text

4. Click **Save**.

You can use the **Test Connector Properties** option to verify your entry.

Configuring Queue Entries in IBSS:

JMS must be setup prior to entering queue details. Stay on the Connector Properties.

-- Webpage Dialog

SoftRater Server close

Connector Properties

The Insbridge Connector Service has configurations for the items below.

Maximum Simultaneous Jobs:

Maximum Threads per Job:

The Insbridge Connector Service has the ability to send email notification(s) on success and/or failure of batch processes. Please enter the SMTP information below.

Protocol: ▼

Host:

Port:

User:

Password:

Email Type: ☒ HTML ☐ Text

The Insbridge Connector Service has the ability to process offline processes using JMS. Please enter the Queue and ReplyTo Queue information below.

Queue Location:

ReplyTo Location:

Connection Factory:

Context Factory:

Provider Url: ×

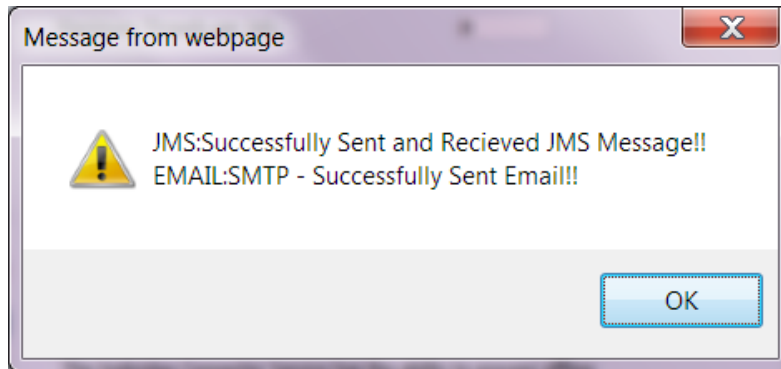
Test Connector Properties Save Close

1. All fields are required in order to configure queues:

- **Queue Location** - JNDI Name of the Request Queue
- **ReplyTo Location** - JNDI Name of the Reply To Queue
- **Connection Factory** - JNDI Name of the Queue Connection Factory
- **Context Factory** - com.ibm.websphere.naming.WsnInitialContextFactory
- **Provider URL** - iiop://<machine_ip_address>:<server_bootstrap_address>

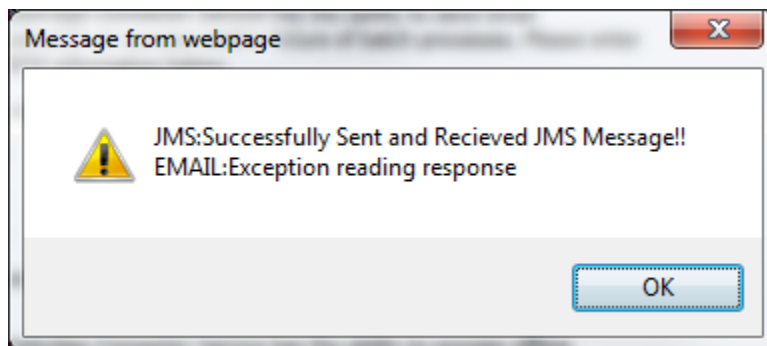
2. Click Save
3. Click **Test Connector Properties** to verify your entries.

A successful setup returns a success message.



This message means that the JMS Connection was successful, and a sample mail will be sent to the email id that is configured in the properties.

A message failure indicates where the message failed.



In this example, SMTP server was not available on the server.

If the JMS fails, check the Controller environment on the IBSS home page. You must be able to successfully test the connection.

4. The final step is to start the Insbridge Connector service.

Troubleshooting

For long running batch processes in java, timeout settings should be updated to avoid timeout errors.

For example, if connection to the engine (call to EJB) from clients is idle for more than configured then it throws an Inactivity timeout: (SocketTimeoutException - Async time out) error.

EJB Transaction Timeout:

This time out issue occurs when an EJB transaction takes more than configured time.

This issue may be solved by the following setting on the admin console. Use for the port needed.

1. Navigate to Application Server>Server>Ports>WC_Defaulthost (this is for port 9080). Click View Associated Transports.
2. Click WCInboundDefault.
3. Click TCP inbound Channel (TCP 2)

Application servers

Messages

Transport Channel TCP_2 is shared between two or more transport chains. Changes to TCP_2 will affect multiple network protocol stacks.

Application servers > server1 > Ports > Transport Chain > WCInboundDefault > TCP inbound channel (TCP_2)

Use this page to configure a TCP inbound channel for inbound network traffic.

Configuration

General Properties	Additional Properties
<p>* Transport channel name</p> <p>TCP_2</p> <p>Port</p> <p>WC_defaulthost (*:9080)</p> <p>Thread pool</p> <p>WebContainer</p> <p>* Maximum open connections</p> <p>20000</p> <p>* Inactivity timeout</p> <p>600 seconds</p> <p>Address exclude list</p> <p>Address include list</p> <p>Hostname exclude list</p> <p>Hostname include list</p>	<p>Custom properties</p> <p>Related Items</p> <ul style="list-style-type: none">PortsThread pools

Apply OK Reset Cancel

4. Click Apply and Save your entry.

Update Total Transaction Setting:

1. Navigate to Application Servers>Server.
2. Select Container Services from Container Settings.
3. Select Transaction Service.

The screenshot shows the 'Application servers' configuration window for 'server1'. The 'Configuration' tab is active. The 'General Properties' section includes fields for 'Name' (server1) and 'Node name' (server10100Node01), with checkboxes for 'Run in development mode', 'Parallel start' (checked), and 'Start components as needed'. The 'Access to internal server classes' is set to 'Allow'. The 'Server-specific Application Settings' section shows 'Classloader policy' as 'Multiple' and 'Class loading mode' as 'Classes loaded with parent class loader first'. The 'Container Settings' section on the right lists various services, with 'Transaction service' highlighted under 'Container Services'. The 'Applications' section at the bottom shows 'Installed applications'.

Application servers

Application servers > server1

Use this page to configure an application server. An application server is a server that provides services required to run enterprise applications.

Runtime Configuration

General Properties

Name
server1

Node name
server10100Node01

☐ Run in development mode

☒ Parallel start

☐ Start components as needed

Access to internal server classes
Allow

Server-specific Application Settings

Classloader policy
Multiple

Class loading mode
Classes loaded with parent class loader first

Container Settings

- Session management
- SIP Container Settings
- Web Container Settings
- Portlet Container Settings
- EJB Container Settings
- Container Services
 - Application profiling service
 - Transaction service**
 - Dynamic cache service
 - Compensation service
 - Internationalization service
 - Default Java Persistence API settings
 - Object pool service
 - ORB service
 - Startup beans service
- Business Process Services

Applications

- Installed applications

Apply OK Reset Cancel

4. Update the Total transaction lifetime timeout.

Application servers

Application servers > server1 > Transaction service

Use this page to specify settings for the transaction service. The transaction service is a server runtime component that can coordinate updates to multiple resource managers to ensure atomic updates of data. Transactions are started and ended by applications or the container in which the applications are deployed.

Runtime Configuration

General Properties

Transaction log directory

* Total transaction lifetime timeout
180 seconds

* Async response timeout
30 seconds

* Client inactivity timeout
60 seconds

* Maximum transaction timeout
300 seconds

Heuristic retry limit
0 retries

Heuristic retry wait
0 seconds

☐ Enable logging for heuristic reporting

Heuristic completion direction
ROLLBACK

☐ Accept heuristic hazard

☒ Enable file locking

☒ Enable transaction coordination authorization

Default WS-Transaction specification level
1.0

External WS-Transaction HTTP(S) URL prefix

Select prefix
☒

Specify custom prefix
☐

Apply OK Reset Cancel

5. Click Apply and Save your entry.

NOTE: Depending on your setup, your console may differ and figures are for reference only.

CONFIGURING PROCESS CONFIGURATION DETAILS

A JMS queue in WebLogic Server is associated with a number of additional resources:

- **JMS Server:** A JMS server acts as a management container for resources within JMS modules. Some of its responsibilities include the maintenance of persistence and state of messages and subscribers. A JMS server is required in order to create a JMS module.
- **JMS Module:** A JMS module is a definition which contains JMS resources such as queues and topics. A JMS module is required in order to create a JMS queue.
- **Subdeployment:** JMS modules are targeted to one or more WLS instances or a cluster. Resources within a JMS module, such as queues and topics are also targeted to a JMS server or WLS server instances. A subdeployment is a grouping of targets. It is also known as advanced targeting.
- **Connection Factory:** A connection factory is a resource that enables JMS clients to create connections to JMS destinations.
- **JMS Queue:** A JMS queue (as opposed to a JMS topic) is a point-to-point destination type. A message is written to a specific queue or received from a specific queue.

STEPS FOR SETTING UP JMS QUEUE IN WEBLOGIC:

The following are the steps to setup JMS for WebLogic Server.

Create a JMS Server

1. Start the WebLogic server and log in to the WebLogic console. (e.g.: <http://10.100.10.100:7001/console>).



2. Go to Services > Messaging > JMS Servers (left-hand navigation menu of server console).
3. Select New.
4. Name: JMSServer-0 & Persistent Store: (none).
5. Click next.
6. Target: AdminServer (or choose an available server).
7. Click Finish.
8. The JMS server should now be visible in the list with Health OK.

Summary of JMS Servers

JMS servers act as management containers for the queues and topics in JMS modules that are targeted to them.

This page summarizes the JMS servers that have been created in the current WebLogic Server domain.

[Customize this table](#)

JMS Servers (Filtered - More Columns Exist)

[New](#) [Delete](#) Showing 1 to 1 of 1 Previous | Next

<input type="checkbox"/>	Name	Persistent Store	Target	Current Server	Health
<input type="checkbox"/>	JMSServer-0		AdminServer	AdminServer	OK

[New](#) [Delete](#) Showing 1 to 1 of 1 Previous | Next

Create a JMS Module

1. Go to Services > Messaging > JMS Modules (left-hand navigation menu of server console).

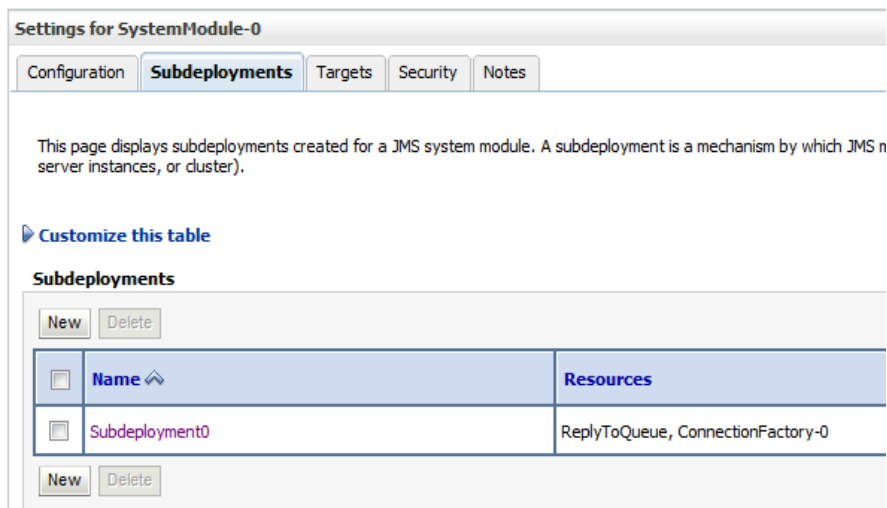


2. Select New.
3. Name: SystemModule-0.
4. Click Next.
5. Leave the other options empty.
6. Targets: AdminServer (or choose the same one as the JMS server).
7. Click Next.
8. Leave "Would you like to add resources to this JMS system module" unchecked.
9. Click Finish.

Create a Subdeployment

A subdeployment is not necessary for the JMS queue to work, but it allows you to easily target subcomponents of the JMS module to a single target or group of targets. This example will use a subdeployment to target the connection factory and JMS queue for the JMS server created earlier.

1. Go to Services > Messaging > JMS Modules.
2. Select SystemModule-0.
3. Select the Subdeployments tab and New.



Settings for SystemModule-0

Configuration **Subdeployments** Targets Security Notes

This page displays subdeployments created for a JMS system module. A subdeployment is a mechanism by which JMS n server instances, or cluster).

[Customize this table](#)

Subdeployments

New Delete

	Name	Resources
	Subdeployment0	ReplyToQueue, ConnectionFactory-0

New Delete

4. Subdeployment Name: Subdeployment-0.
5. Click Next.

Select the target(s) for the subdeployment. The purpose of the subdeployment is to target a specific JMS server. Choose the JMS Server option. Alternately, you can choose either

Servers (i.e. WebLogic Admin server, such as the Admin Server) or JMS Servers such as the JMS Server created earlier.

6. Select the JMSServer-0 created earlier.
7. Click Finish.

Create a Connection Factory

1. Services > Messaging > JMS Modules.
2. Select SystemModule-0 and click New.
3. Select Connection Factory.
4. Click Next.

Create a New JMS System Module Resource

Back Next Finish Cancel

Choose the type of resource you want to create.

Use these pages to create resources in a JMS system module, such as

Depending on the type of resource you select, you are prompted to enter destinations, you can also proceed to targeting pages for selecting application resources.

☒ **Connection Factory**

☐ **Queue**

5. Name: ConnectionFactory-0
6. JNDI Name: jms/ConnectionFactory
7. Leave the other values at default
8. On the Targets page, select the Advanced Targeting button and select Subdeployment-0

Create a New JMS System Module Resource

Back
Next
Finish
Advanced Targeting
Cancel

The following properties will be used to target your new JMS system module resource

Use this page to view and accept the default targets where this JMS resource will be targeted. The default subdeployment mechanism for targeting this resource.

The following JMS module targets will be used as the default targets for your new JMS system module resource

Targets :

Servers

☒ AdminServer

Back
Next
Finish
Advanced Targeting
Cancel

Create a New JMS System Module Resource

Back
Next
Finish
Cancel

The following properties will be used to target your new JMS system module resource

Use this page to select a subdeployment to assign this system module resource. A subdeployment is a mechanism by which you can group related resources together. You can also reconfigure subdeployment targets later by clicking the **Create a New Subdeployment** button.

Select the subdeployment you want to use. If you select (none), no targeting will occur.

Subdeployments: Subdeployment0

What targets do you want to assign to this subdeployment?

Targets :

Servers

☐ AdminServer

Clusters

☐ Cluster1

☒ All servers in the cluster
☐ Part of the cluster

☐ MS2
☐ MS1

JMS Servers

☒ JMSServer-0

Back
Next
Finish
Cancel

9. Click **Finish**
10. The connection factory should be listed on the following page with **SystemModule-0** and **JMSServer-0** as the target.

Creating JMS Queues

1. Services > Messaging > JMS Modules.
2. Select **SystemModule-0** and press **New**.
3. Select **Queue** and **Next**.
4. Name: **ReplyToQueue**
5. JNDI Name: **jms/ReplyToQueue**
6. Template: **None**
7. Click **Next**
8. Subdeployments: **Subdeployment-0**
9. Finish. The ReplyToQueue should be listed on the following page with Subdeployment-0 and JMSServer-0.
10. Select **SystemModule-0** and press **New**.
11. Select **Queue** and **Next**.
12. Name: **RequestQueue**
13. JNDI Name: **jms/RequestQueue**
14. Template: **None**
15. Click **Next**
16. Subdeployments: **Subdeployment-0**
17. Finish. The RequestQueue should be listed on the following page with Subdeployment-0 and JMSServer-0.

The JMS setup is now complete and can be accessed using the JNDI names:
Jms/connectionFactory, jms/ReplyToQueue and jms/RequestQueue.

Settings for SystemModule-0

Configuration

Subdeployments

Targets

Security

Notes

This page displays general information about a JMS system module and its resources. It also allows you to configure new resources and access existing resources.

Name:

SystemModule-0

The name of this JMS system module. [More Info...](#)

Descriptor File Name:

jms/systemmodule-0-jms.xml

The name of the JMS module descriptor file. [More Info...](#)

This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.

[Customize this table](#)

Summary of Resources

New

Delete

Showing 1 to 3 of 3

Previous

Next

<input type="checkbox"/>	Name ↕	Type	JNDI Name	Subdeployment	Targets
<input type="checkbox"/>	ConnectionFactory-0	Connection Factory	.jms/ConnectionFactory	Subdeployment-0	JMSServer-0
<input type="checkbox"/>	ReplyToQueue	Queue	.jms/ReplyToQueue	Subdeployment-0	JMSServer-0
<input type="checkbox"/>	RequestQueue	Queue	.jms/RequestQueue	Subdeployment-0	JMSServer-0

New

Delete

Showing 1 to 3 of 3

Previous

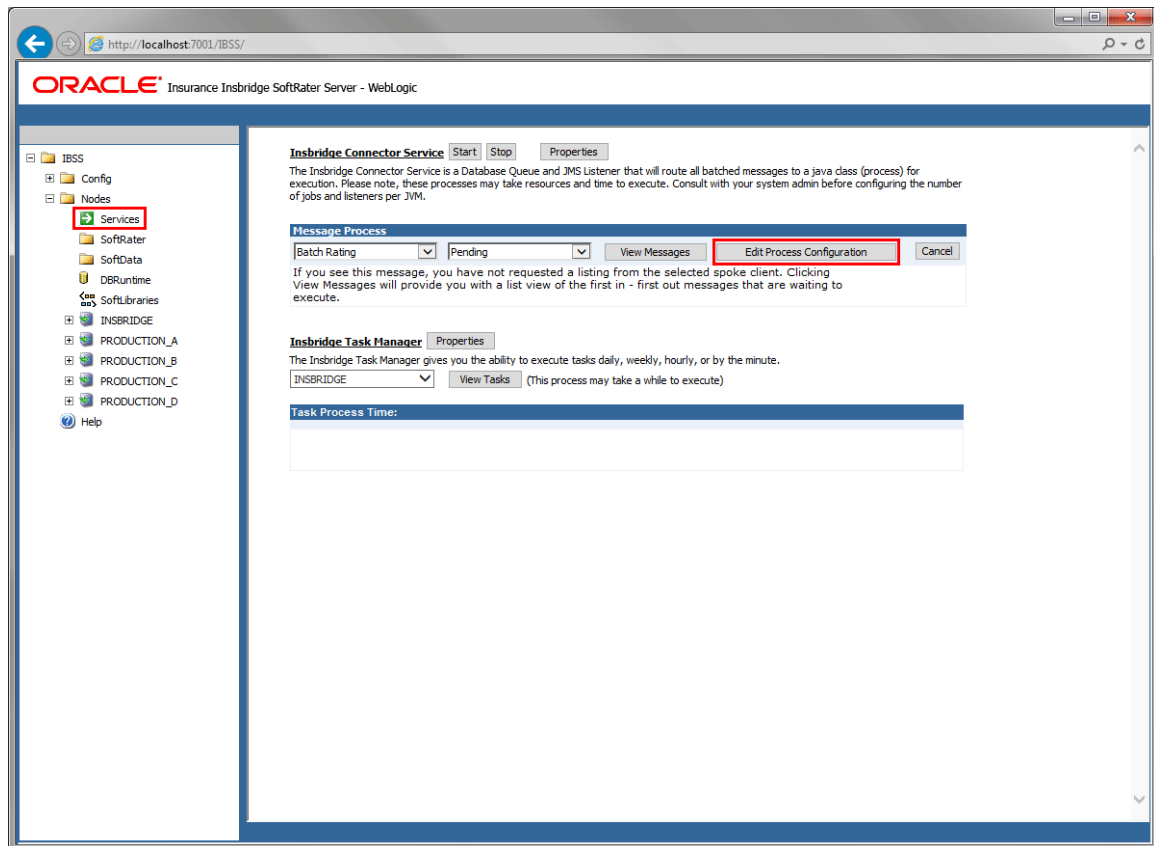
Next

UPDATES TO IBSS

The Notification details need to be configured in order to receive the email response for successful/failed transactions.

Open the IBSS application screen.

1. Locate the Services screen under the Nodes options. IBSS > Nodes > Services.



2. Click Edit Process Configuration. A separate screen is displayed.
3. Enter values for the Insubridge Connector Service.



4. Click Save.

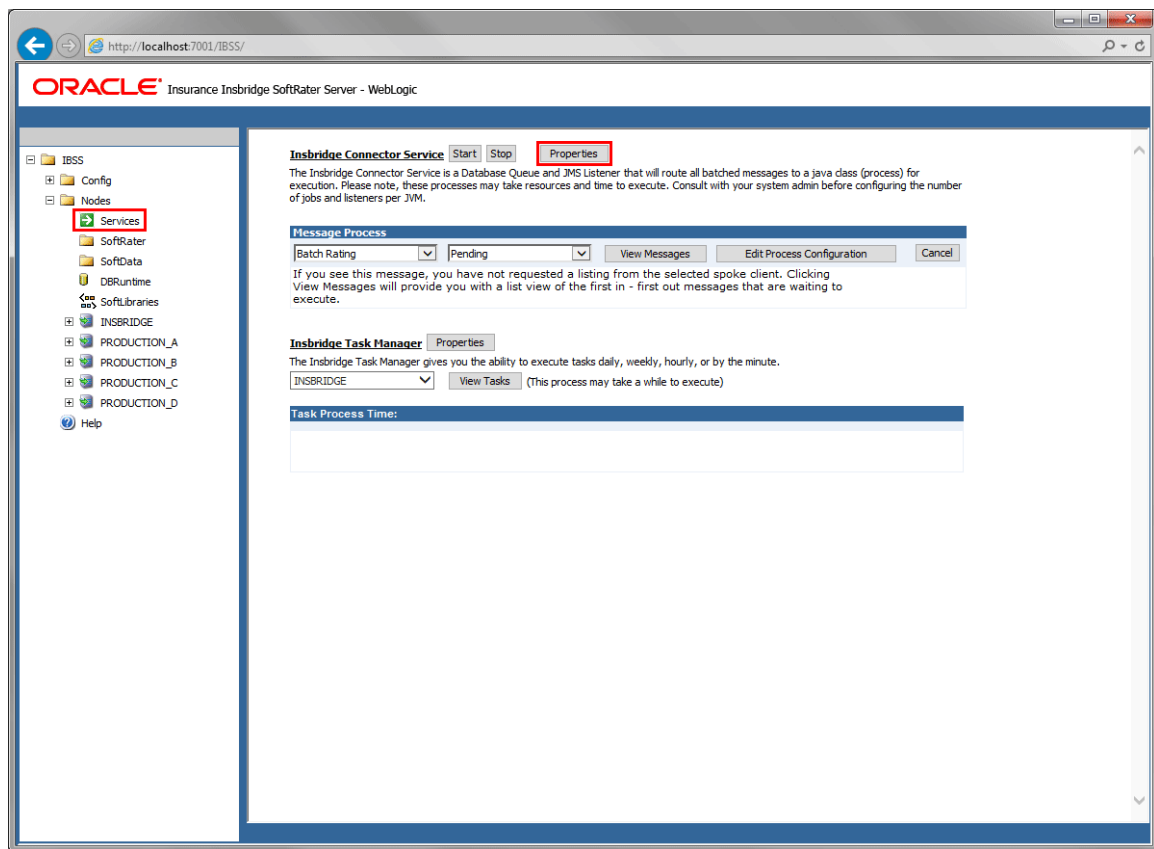
CONFIGURING NOTIFICATION

Notification details need to be configured in order to receive the email response for successful/failed transactions.

Configuring Email on IBSS:

Open the IBSS application screen.

1. Locate the Services screen under the Nodes options. IBSS > Nodes > Services.



2. Click Properties. A separate screen is displayed.
3. Enter values for the Inbridge Connector Service.

-- Webpage Dialog

SoftRater Server [close](#)

Connector Properties

The Insbridge Connector Service has configurations for the items below.

Maximum Simultaneous Jobs:

Maximum Threads per Job:

The Insbridge Connector Service has the ability to send email notification(s) on success and/or failure of batch processes. Please enter the SMTP information below.

Protocol:

Host:

Port:

User:

Password:

Email Type: ☒ HTML ☐ Text

The Insbridge Connector Service has the ability to process offline processes using JMS. Please enter the Queue and ReplyTo Queue information below.

Queue Location:

ReplyTo Location:

Connection Factory:

Context Factory:

Provider Url:

- **Protocol** – SMTP or SMTPS or JNDI
- **Host** – email host
- **Port** – port used
- **User** – Login id
- **Password** – Password
- **Email Type** – HTML or Text

4. Click **Save**.

You can use the Test Connector Properties Options to verify your entry.

Configuring Queue Entries in IBSS:

JMS must be setup prior to entering queue details. Stay on the Connector Properties.

The screenshot shows a web browser window titled "-- Webpage Dialog" displaying the "SoftRater Server" interface. The main section is titled "Connector Properties". It contains the following fields and options:

- Maximum Simultaneous Jobs:** 1
- Maximum Threads per Job:** 5
- The Insbridge Connector Service has the ability to send email notification(s) on success and/or failure of batch processes. Please enter the SMTP information below.**
 - Protocol:** SMTP (dropdown)
 - Host:** email.server.example.com
 - Port:** 555
 - User:** admin@example.com
 - Password:** [masked]
 - Email Type:** ☒ HTML, ☐ Text
- The Insbridge Connector Service has the ability to process offline processes using JMS. Please enter the Queue and ReplyTo Queue information below.** (This section is highlighted with a red box in the image)
 - Queue Location:** jms/RequestQueue
 - ReplyTo Location:** jms/ReplyToQueue
 - Connection Factory:** jms/ConnectionFactory
 - Context Factory:** weblogic.jndi.WLInitialContextF
 - Provider Url:** t3://localhost:7001

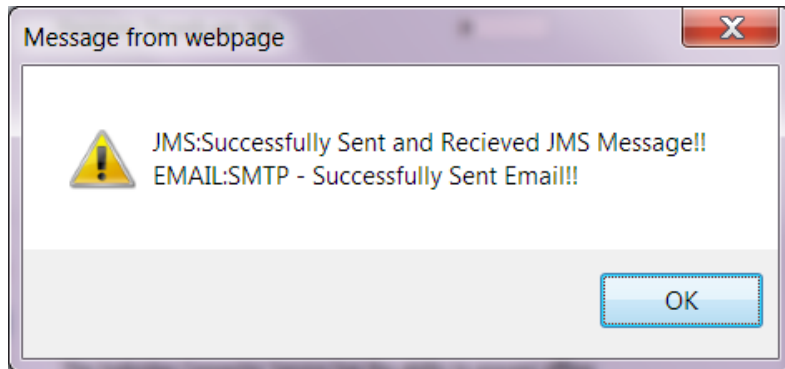
At the bottom, there are buttons for "Test Connector Properties", "Save", and "Close".

5. All fields are required in order to configure queues:

- **Queue Location** - JNDI Name of the Request Queue
- **ReplyTo Location** - JNDI Name of the Reply To Queue
- **Connection Factory** - JNDI Name of the Queue Connection Factory
- **Context Factory** - weblogic.jndi.WLInitialContextFactory
- **Provider URL** - t3://localhost:7001

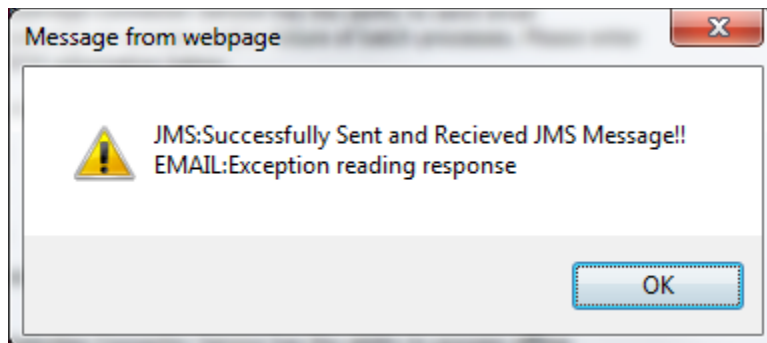
6. Click Save
7. Click **Test Connector Properties** to verify your entries.

A successful setup returns a success message.



This message means that the JMS Connection was successful, and a sample mail will be sent to the email id that is configured in the properties.

A message failure indicates where the message failed.



In this example, SMTP server was not available on the server.

If the JMS fails, check the Controller environment on the IBSS home page. You must be able to successfully test the connection.

8. The final step is to start the Insbridge Connector service.

Troubleshooting

If you encounter issues when running a batch, for example,

```
<error>EJB Exception: ; nested exception is: java.lang.OutOfMemoryError: GC
overhead limit exceeded; nested exception is: java.rmi.RemoteException: EJB
Exception: ; nested exception is: java.lang.OutOfMemoryError: GC overhead limit
exceeded</error>
```

You may need to increase JVM heap setting and/or increase timeout settings.

Increase WebLogic JVM Heap:

The default WebLogic Java Virtual Machine memory may not be enough. To avoid a “**java.lang.OutOfMemory**” exception, the JVM memory can be expanded on WebLogic.

Note: Before modifying the heap size, ensure that the system has enough physical memory to support a Java Virtual Machine (JVM). The recommendation is for 1024 for “Initial heap size” and 2048 for “Maximum heap size.”

On the Application Server:

1. On the WebLogic server where IBSS has been deployed, locate the SetDomainEnv.cmd file. For example,
C:\Oracle\Middleware\Oracle_Home\user_projects\domains\lnsbridge\bin.
2. Make a copy of SetDomainEnv.cmd for safe keeping.
3. Edit the file so that the previous settings (-Xms256m -Xmx512m) are changed to new settings (-Xms1024m -Xmx1024m).

```
if "%JAVA_VENDOR%"=="Sun" (
    set WLS_MEM_ARGS_64BIT=-Xms1024m -Xmx1024m
    set WLS_MEM_ARGS_32BIT=-Xms1024m -Xmx1024m
) else (
    set WLS_MEM_ARGS_64BIT=-Xms512m -Xmx512m
    set WLS_MEM_ARGS_32BIT=-Xms512m -Xmx512m
)
```

4. Restart the server.

If the issue persists, increase the JVM heap setting to 2048m and change the transaction timeout settings from 30 sec to 180 sec.

CONFIGURING PROCESS CONFIGURATION DETAILS

The POI jar files are needed when users export table data using Microsoft Excel in JBoss. Failure to add the necessary files will result in errors for users. It is recommended that POI file be added at installation. But POI files can be added at a later time. If users experience errors, verify POI files are in place. Access to the server where JBoss is deployed is required. Please see the Installation Guide for JBoss for details.

The first step is to create and configure JMS queues and connection factory.

JMS Queue:

1. Start the JBoss server. (run the standalone.bat file for windows and standalone.sh for Linux machine.)
2. Open up a web browser and go to <http://localhost:9990/> to open the management console. (e.g., <http://10.100.10.100:9990/console>)
3. Go to Configuration -> Subsystems -> Messaging – Active MQ -> Messaging Provider:default. Select Queues/Topics.
4. Click the Add button to add a new Queue.

RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM Messages: 0 Insbridge

« Back Configuration: Subsystems > Subsystem: Messaging – ActiveMQ > Messaging Provider: default

MESSAGING DESTINATIONS

JMS Endpoints: Provider default

Queue and Topic destinations.

Queues Topics

Add Remove

Name	JNDI
ExpiryQueue	[java:/jms/queue/ExpiryQueue]
DLQ	[java:/jms/queue/DLQ]

« < 1-2 of 2 > »

Need Help?

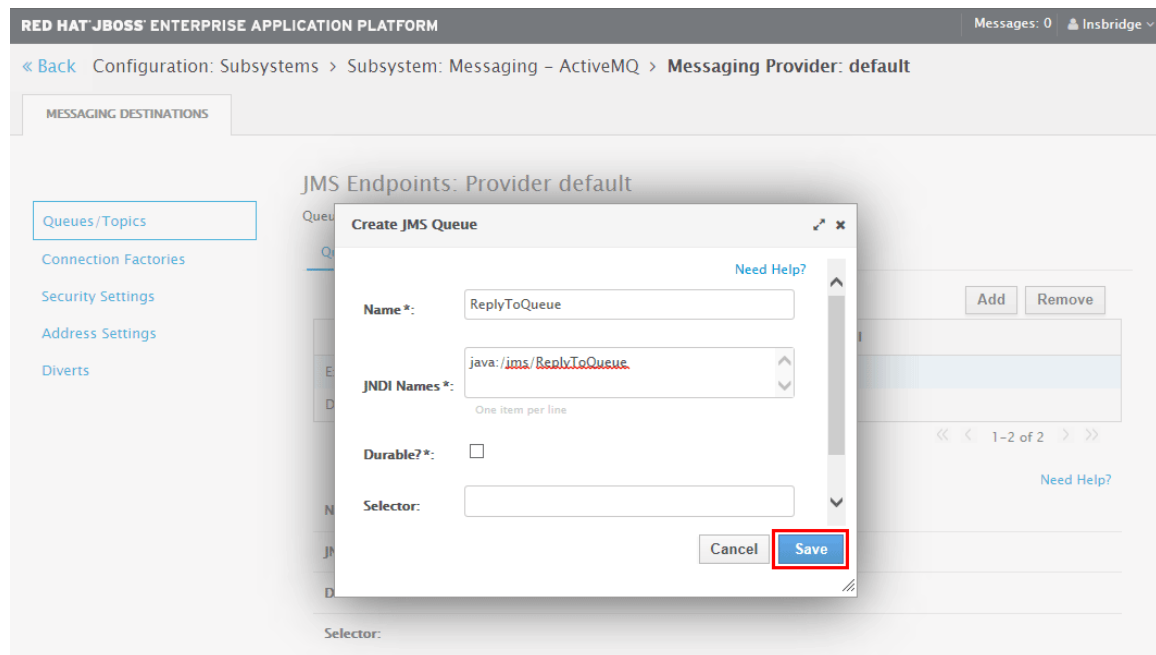
Name: ExpiryQueue

JNDI Names: java:/jms/queue/ExpiryQueue

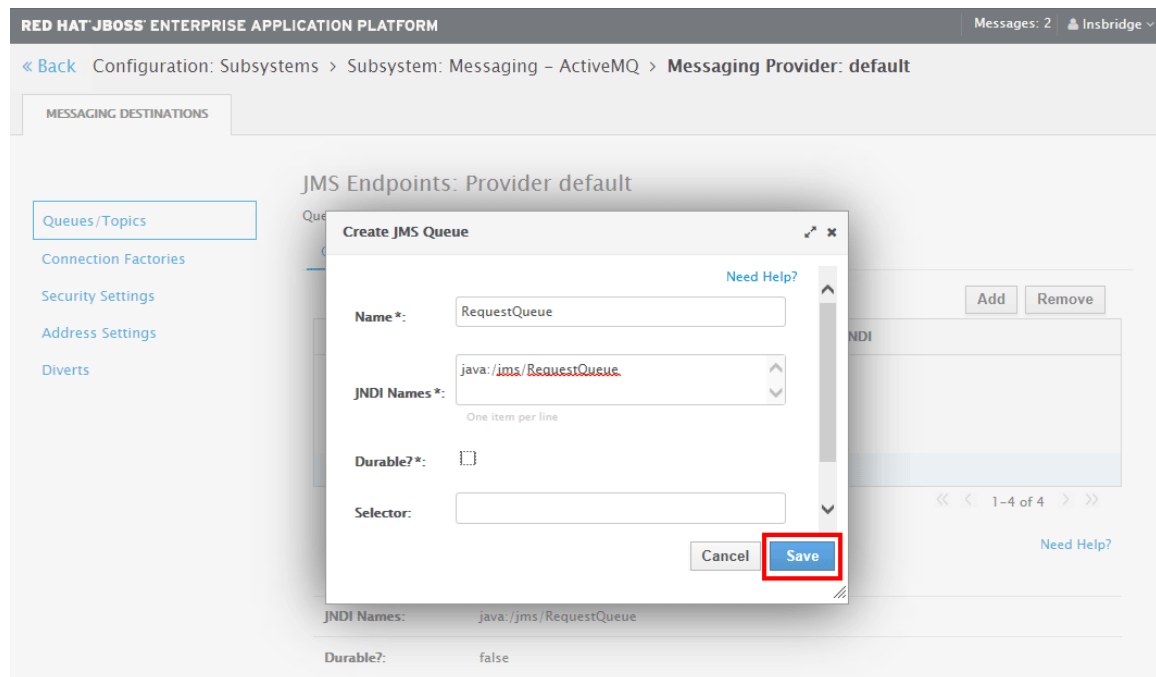
Durable?: true

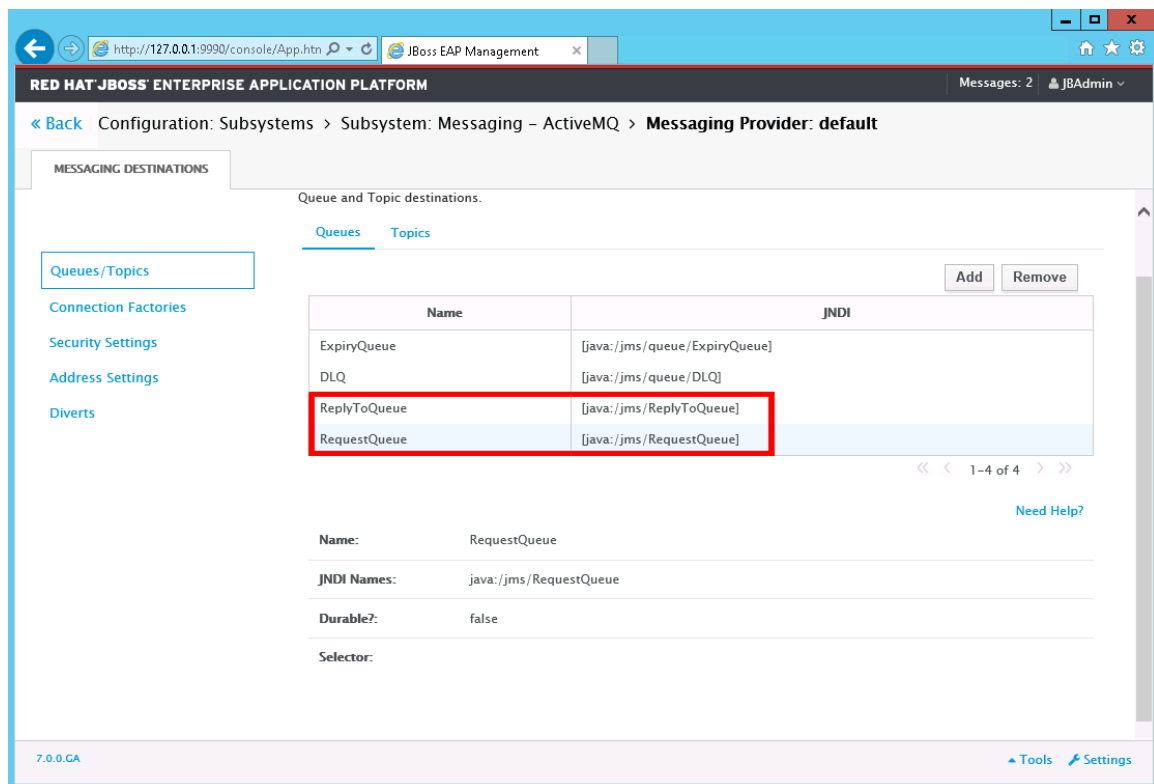
Selector:

5. Enter ReplyToQueue as Name and java:/jms/ReplyToQueue for the JNDI Name.
6. Uncheck Durable.



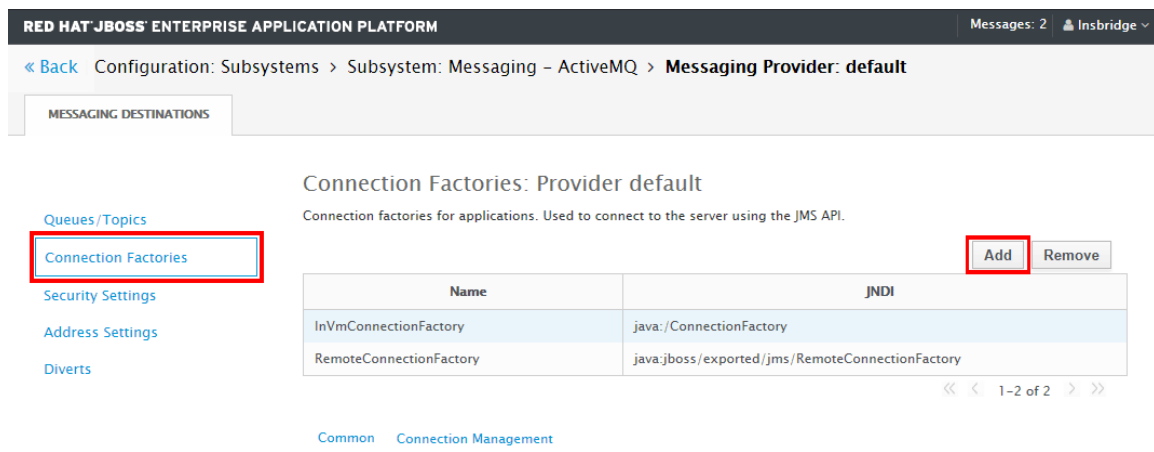
7. Click save and verify. You now have a non-durable queue.
8. To add the Request Queue, click the Add button.
9. Enter RequestQueue as Name and java:/jms/RequestQueue for the JNDI Name, uncheck Durable.
10. Click save and verify. You now have a second non-durable queue.



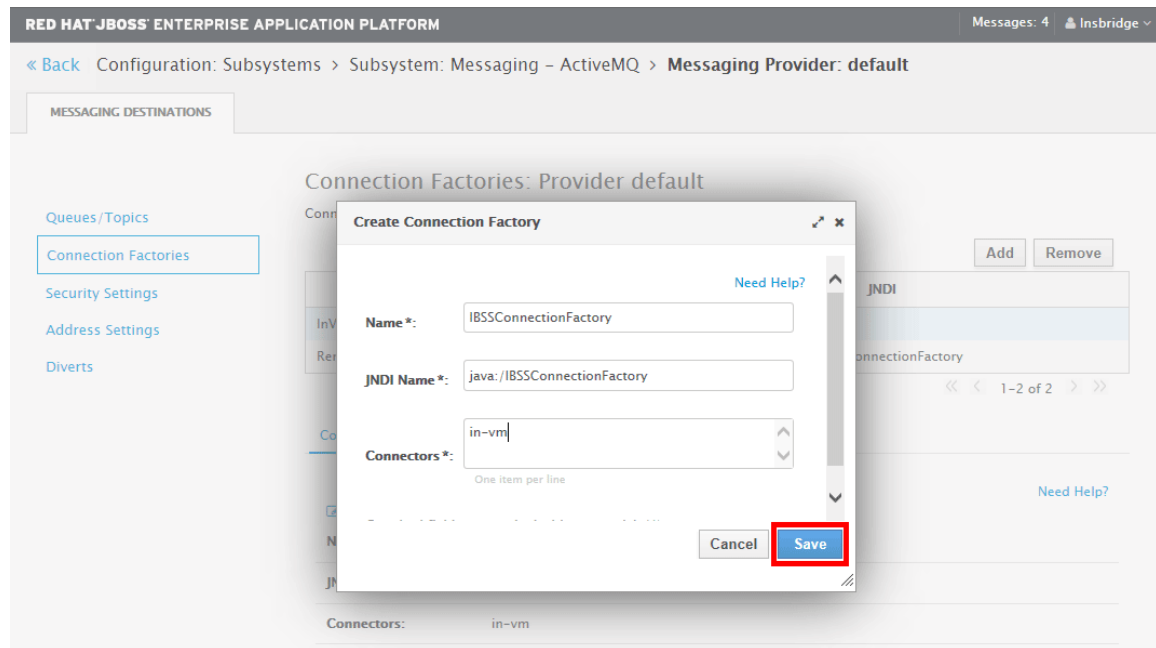


Connection Factory:

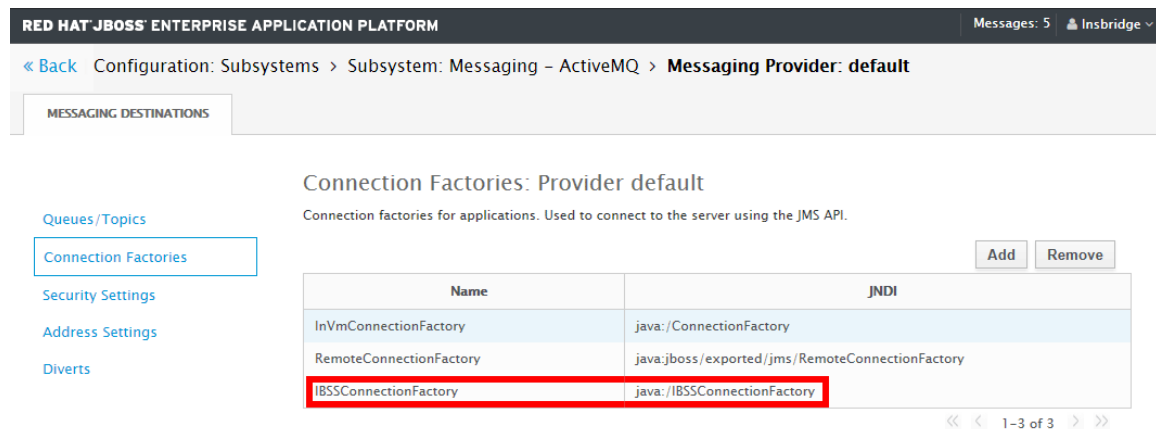
1. Stay On the Messaging Provider: default page.
2. Select Connection Factories.



3. Click the Add button to add a new Connection Factory.
4. Enter IBSSConnectionFactory as Name, java:/IBSSConnectionFactory for the JNDI Name and in-vm for the Connector.



5. Click save to save your entry.

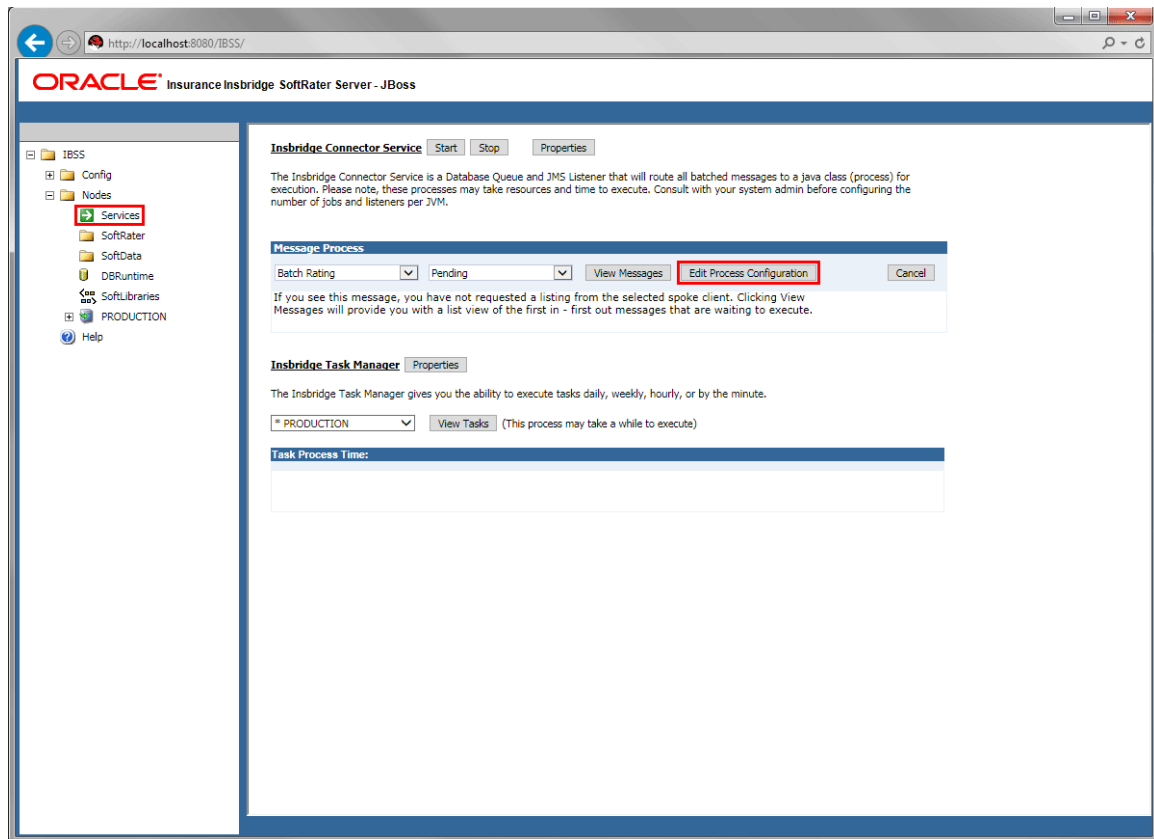


UPDATES TO IBSS

The Notification details need to be configured in order to receive the email response for successful/failed transactions.

Open the IBSS application screen.

1. Locate the Services screen under the Nodes options. IBSS > Nodes > Services.



2. Click Edit Process Configuration. A separate screen is displayed.
3. Enter values for the Inbridge Connector Service.



4. Click Save.

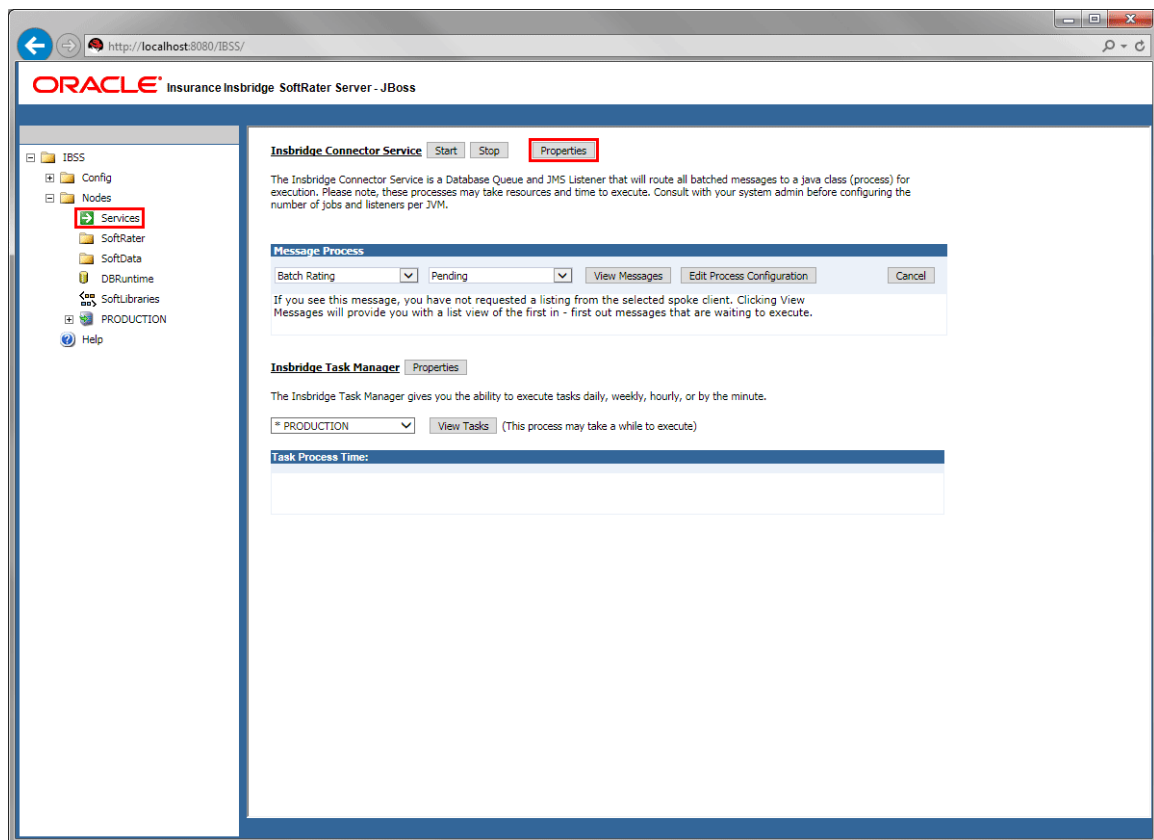
CONFIGURING NOTIFICATION

Notification details need to be configured in order to receive the email response for successful/failed transactions.

Configuring Email on IBSS:

Open the IBSS application screen.

5. Locate the Services screen under the Nodes options. IBSS > Nodes > Services.



6. Click Properties. A separate screen is displayed.
7. Enter values for the Insbridge Connector Service.

-- Webpage Dialog

SoftRater Server [close](#)

Connector Properties

The Insbridge Connector Service has configurations for the items below.

Maximum Simultaneous Jobs:

Maximum Threads per Job:

The Insbridge Connector Service has the ability to send email notification(s) on success and/or failure of batch processes. Please enter the SMTP information below.

Protocol:

Host:

Port:

User:

Password:

Email Type: ☒ HTML ☐ Text

The Insbridge Connector Service has the ability to process offline processes using JMS. Please enter the Queue and ReplyTo Queue information below.

Queue Location:

ReplyTo Location:

Connection Factory:

Context Factory:

Provider Url:

- **Protocol** – SMTP or SMTPS or JNDI
- **Host** – email host
- **Port** – port used
- **User** – Login id
- **Password** – Password
- **Email Type** – HTML or Text

8. Click **Save**.

You can use the Test Connector Properties Options to verify your entry.

Configuring Queue Entries in IBSS:

JMS must be setup prior to entering queue details. Stay on the Connector Properties.

Webpage Dialog

SoftRater Server

Connector Properties

The Insbridge Connector Service has configurations for the items below.

Maximum Simultaneous Jobs: 1

Maximum Threads per Job: 5

The Insbridge Connector Service has the ability to send email notification(s) on success and/or failure of batch processes. Please enter the SMTP information below.

Protocol: SMTP

Host: email.server.example.com

Port: 555

User: admin@example.com

Password:

Email Type: ☒ HTML ☐ Text

The Insbridge Connector Service has the ability to process offline processes using JMS. Please enter the Queue and ReplyTo Queue information below.

Queue Location: java:/jms/RequestQueue

ReplyTo Location: java:/jms/ReplyToQueue

Connection Factory: java:/ConnectionFactory

Context Factory: org.jboss.naming.remote.client.

Provider Url: http://10.100.100.100:4447

Test Connector Properties Save Close

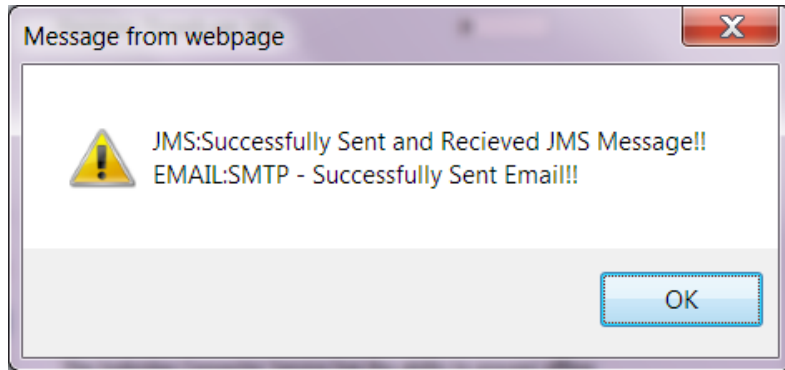
9. All fields are required in order to configure queues:

- **Queue Location** - JNDI Name of the Request Queue
- **ReplyTo Location** - JNDI Name of the Reply To Queue
- **Connection Factory** - JNDI Name of the Queue Connection Factory
- **Context Factory** - org.jboss.naming.remote.client.InitialContextFactory
- **Provider URL** - REMOTE:// (URL):4447

10. Click Save

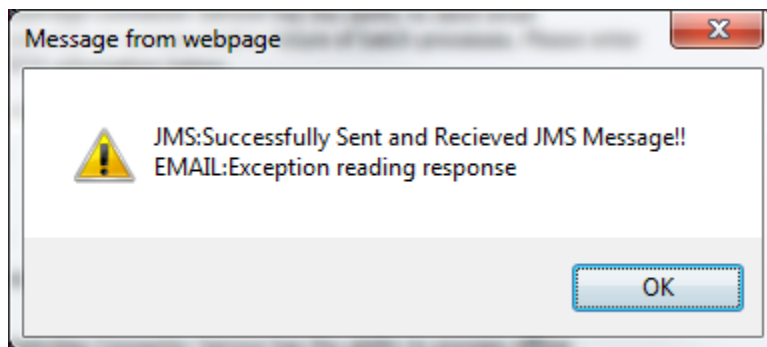
11. Click **Test Connector Properties** to verify your entries.

A successful setup returns a success message.



This message means that the JMS Connection was successful, and a sample mail will be sent to the email id that is configured in the properties.

A message failure indicates where the message failed.



In this example, SMTP server was not available on the server.
If the JMS fails, check the Controller environment on the IBSS home page. You must be able to successfully test the connection.

12. The final step is to start the Insbridge Connector service.

Optional – Increasing the Timeout Settings

For long running batch processes in java, timeout settings should be updated to avoid timeout errors.

For example, an **EJB Transaction timeout** issue occurs when an EJB transaction takes more than configured time.

This issue can be solved by adjusting the Default Timeout on the admin console.

The screenshot shows the Red Hat JBoss Enterprise Application Platform admin console. The breadcrumb navigation at the top reads: « Back Configuration: Subsystems > Subsystem: Transactions. The main heading is 'Transaction Manager' with the subtitle 'The configuration of the transactions subsystem.' Below this are tabs for 'Attributes', 'Process ID', 'Recovery', 'Path', and 'JDBC'. The 'Attributes' tab is active. An 'Edit' button is highlighted with a red box. The configuration table below has the following rows:

Default timeout:	300
Enable tsm status:	false
Journal store enable async io:	false
Jts:	false
Node identifier:	1
Statistics enabled:	false
Use journal store:	false

NOTE: Depending on your setup, your console may differ and figures are for reference only.

BATCH USING A NON-WINDOWS OS

When IBSS is configured in non-Windows OS, for example; Linux, IBM AIX, Oracle Solaris, or UNIX, additional steps are needed to allow IBSS to communicate with the shared Workfiles drive.

Workfiles are rating, pricing, mapping, template, and table export files used in various areas of RateManager such as Impact Analysis, Library, Testing and Table Job Management. A shared Workfiles location allows for multiple instances of RateManager to share the same Workfiles. A shared workfiles location is required for Table Job batch jobs.

SYSTEM REQUIREMENTS

Administrators should be familiar with managing servers and various operating systems, and working with Domains.

- Access to the server where Insbridge has been installed
- The Insbridge User Account. This is the user used to install Insbridge.
- Access to the server where IBSS has been deployed
- Installer has full rights to use a mount command and create a share as required
- The Insbridge server and the shared location must be on the same domain.
- The Insbridge user from the RateManager instance must be a user on the share domain also. If the Insbridge user is not, users will not be able to write files to the share.

Steps to Allow Batch Using a Non-Windows OS

1. Configure windows shared folder
2. Create a folder on the non-Windows server
3. Use the mount command
4. Configure the localpath in IBSS

Configuring the Windows Shared Folder

When RateManager is installed in a Windows environment and IBSS is deployed in non-Windows environment then the Table Management Files folder needs to be shared between Windows and the non-Windows environment.

Step 1: Verify the Insbridge application pool on the server where the Insbridge system has been installed. Verify the Insbridge sites have been assigned to the Insbridge application pool.

Step 2: Verify that the Insbridge com+ settings, and the Insbridge message service all are set to the Insbridge user.

Step 3: On the share server, create a new Workfiles folder. Give the Insbridge user full permission to the new Workfiles folder.

Step 4: Enter the RateManager instance where you want to use the new Workfiles location and update the Preferences screen with the new location. In the network share path that is entered, be sure to include Workfiles as that last folder in the path. For example:
`\\server.example.com\InsbridgeFiles\Workfiles`

For more details, please see the *Insbridge Workfiles Installation Guide*.

Create a Folder on the non-Windows Server

Log in to the non-Windows machine and create a folder with read and write permissions.

For example: `/scratch/Insbridge/Tempexp`

Make note of the directory path, it is needed later in the setup.

Running the Mount Command

Run the mount command replace values with values relevant for the server:

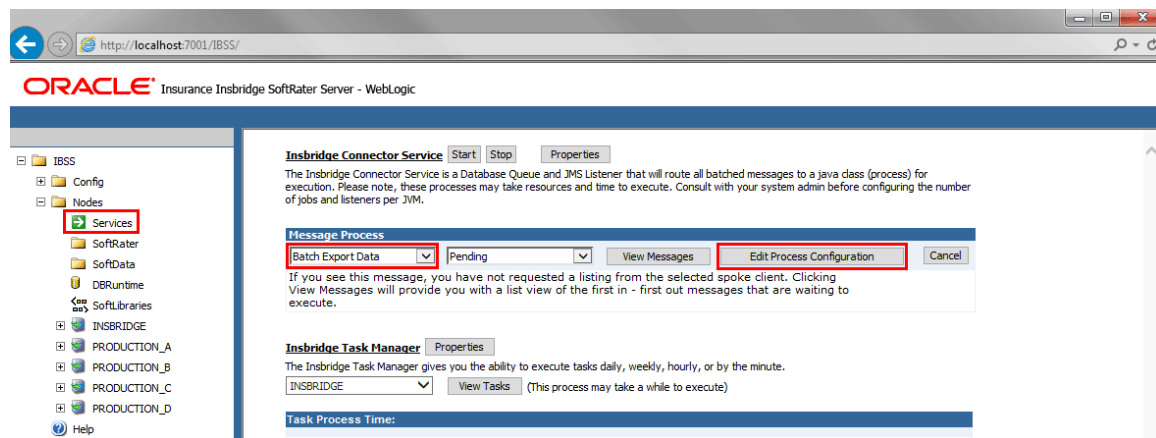
```
mount -t cifs //<windows-machine-name>/InsbridgeFiles/Workfiles /scratch/Insbridge/Tempexp -o  
username=<unix-user>,password=<unix-password>,dir_mode=0777,file_mode=0777
```

After a successful execution, the Windows related files in the newly mapped folder should be visible on the non-Window machine using directory listing commands.

Localpath Configuration

The path now needs to be entered in IBSS. IBSS uses the non-Windows local path to create the files and uses for table import/export. To do that, a localpath configuration is required in IBSS.

Navigate to IBSS->Nodes->Services



In the Message Process are, select Batch Export Data and click Edit Process Configuration.



Enter the localpath from the non-Windows machine in the Local Repository Path. For example: /scratch/Insbridge/Tempexp. This field is case sensitive.

Save and close.

EXAMPLE STEPS FOR BATCH RATING

These examples show batch rating in various ways.

Rate Normal: - Synchronous Processing

1. Navigate to **IBSS → Nodes → SoftRater**.
2. Select the Node from the dropdown.
3. In "Enter Request XML text or file path below:", Select XML and paste the rateDoc in the text field.
4. Under ProcessAsync, select Async Processing as "**Off**".
5. Under Optional Rate Operators, type the Environment Name in the text box.
6. Click **Execute!**
7. The Result Information text area should be populated with the result xml.
8. Click on **ViewXml** and find **TOTALPOLICYPREMIUM_R**. Note down the value.

Rate Synchronous & Add Inputs/Results to DB

1. Navigate to **IBSS -> Nodes -> SoftRater**.
2. Select the Node from the dropdown.
3. In "Enter Request XML text or file path below:", Select XML and paste the rateDoc in the text field.
4. Under ProcessAsync, select Async Processing as "**Off**".
5. Under Optional Rate Operators, type the Environment Name in the text box.
6. Under Rate Operators, select the checkbox for **Add Input data to the DB** and **Add Result data to the DB**.
7. Click **Execute!**
8. The Result Information text area should be populated with the result xml.
9. Click on **ViewXml** and get the 'db__rt_INPUT_BATCH_ID', 'db__rt_INPUT_FILE_ID', 'db__rt_RESULT_BATCH_ID', 'parent_id' values from the resultXML.
10. Leave the current window as such and open IBSS application in a new window.
11. Navigate to **IBSS → Nodes → DBRuntime**.
12. Select Node value as the node that was earlier selected while executing the rateDoc.
13. In the method, select '**GetInputXML**'.
14. Enter 'Input Batch Id' with **db__rt_INPUT_BATCH_ID** and 'File Id' with **db__rt_INPUT_FILE_ID** with the values noted down from the resultXML.
15. Enter **parent_id** value for 'Subscriber Id'.
16. Environment value should be the same as we entered in SoftRater screen.
17. After entering all the required values, click **Execute!**
18. The Result Information text area should be populated with the xml having **complete="no"** as below

```
<rate project_id="1" env_def="oracle_dr"
PolicyNumber="XMLInput_ChangeAutoComplex_127" complete="no"
><heading><program parent_id="8659" id="318" ver="1" ></program></heading></rate>
```
19. Now open IBSS application in another window.

20. Navigate to **IBSS → Nodes → <Node_Name>**(Node which was selected to execute)-> **Services**
21. Now, Start the Insbridge Connector Service by clicking **Start**.
22. Now go to the window where the DBRuntime screen is open.
23. Clear the Result Information.
24. With the previously entered values, click **Execute!**
25. The Result Information should display the complete Request XML.
26. Now from the Request Information, select **GetResultXML** from the dropdown for Method.
27. Enter the **db__rt_RESULT_BATCH_ID** value in the text box for Result Batch Id, **db__rt_INPUT_FILE_ID** value for File Id, and other values as previously entered.
28. Clear result information.
29. Click **Execute!**
30. The Result information text area gets populated with the Result XML.

Rate Async – Show Items in the Queue

1. Navigate to **IBSS → Nodes → SoftRater**.
2. Select the Node from the dropdown.
3. In “Enter Request XML text or file path below.”, Select XML and paste the rateDoc in the text field.
4. Under ProcessAsync, select Async Processing as “Off”
5. Under Optional Rate Operators, type the Environment Name in the text box.
6. Under Rate Operators, select the checkbox for **Add Input data to the DB** and **Add Result data to the DB**
7. Click **Execute!**
8. The Result Information text area should be populated with the result xml.
9. Now open IBSS application in another window.
10. Navigate to **IBSS → Nodes → <Node_Name>**(Node which was selected to execute)-> **Services**
11. In the Services screen, select **Broker – Request** from the first dropdown, the second dropdown defaults to **pending**.
12. Click on **View Messages**.
13. The table should display the request that was just submitted to db.
14. Now, Start the Insbridge Connector Service by clicking **Start**.
15. Then clicking on the **View Messages** for Broker - Request should return “No Messages found”.
This means that the request has been picked up by the Timer service that was just started and the request has been stored to the Database.
16. Now select **Broker – Response** from the first dropdown
17. Click **View Messages**
18. The table should display the result.

Rate Using ESI Tester

1. Store the all the rateDoc input files to a directory. Eg. D:\ReqFiles
2. In the IBSS application, navigate to **IBSS → Nodes → <Node_Name>**(Node which was selected to execute) → **Services**
3. Make sure the Insbridge Connector Service is **Stopped**.
4. Unzip the ESI Tester.

5. Unzip the InsbridgeEsiServices.jar. Edit the **config.properties** file to point to the correct hostname (SERVERNAME:PORT#) and contextRoot (IBSS).
6. Edit the EsiSwingTester.cmd and set JAVA_HOME.
7. Double clicking on the EsiTester.cmd to open the UI, select **Test IBSS**.
8. The ESI Tester:IBSS is displayed. Check the right top corner, Assembly Process and Soft Service should be Online. If the value is OFFLINE, correct the entry in the config.properties file.
9. Click on the Insbridge XML tab.
10. Select XML Type as **File**.
11. In the text area select the directory in where the rate request files were placed in step 1.
<directory_name>*.xml
12. Enter the subscriber ID and Environment ID in the respective text fields below.
13. Click **Submit to Runtime DB**.
14. The system returns a Batch ID. Make a note of it.
15. Navigate to **IBSS → Nodes → <Node_Name>**(Node which was selected to execute) → **Services**.
16. Select **Broker – Request** from the dropdown, click **View Messages**.
17. A complete list of requests is displayed.
18. Start **Insbridge Connector Service**.
19. Continue checking the **Broker – Request**. Requests are picked up one after the other for every specified interval.
20. When there are no more requests displayed in the **Broker – Request**, **Stop** the Insbridge Connector Service.
21. On the ESI Tester screen, click the **Batch** tab.
22. Enter the Batch ID. This is the ID returned when the batch was submitted in Step 14.
23. Enter the Subscriber ID and Environment ID.
24. Check the **Read Write Option** box.
25. Enable Email Notification by checking the **Email Notification**.
26. Enter the email addresses where the response should be sent. Separate the emails with a semicolon “;”
27. Click **Start Batch**.
28. A “Successfully Submitted Batch” message should be returned along with a batch ID.
29. Navigate to **IBSS → Nodes → <Node_Name>**(Node which was selected to execute) → **Services**.
30. Select **Batch Rating** from the drop down. Click **View Messages**.
31. The Batch Request that was submitted through the ESI Tester should be displayed.
32. Start the Insbridge Connector Service.
33. Select **Batch Rating** from the type drop down, select **Processing** from the status drop down.
34. Click **View Messages**. The request should be processing by the Worker Manager.
35. If the request is not displayed for **processing**, select **Completed** and verify if the request is completed.

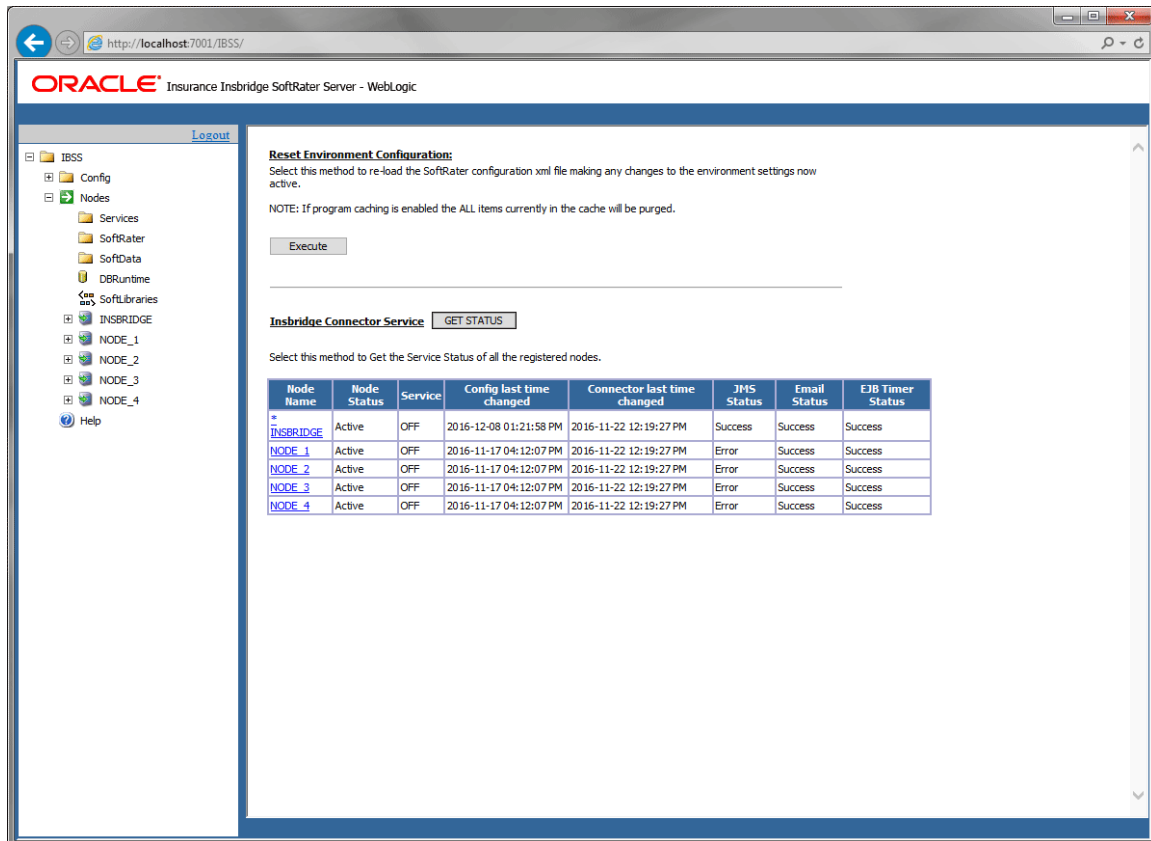
Upon completion of rating, the response will be sent to the email address that was entered in the ESI-Tester screen.

STATUS TABLE DEFINITIONS

The status table presents the current information regarding the node.

Getting Status

1. Navigate to **IBSS** → **Nodes**.
2. Click on the **GET STATUS** button.
3. Get Status table contains columns which are Node Name, Node Status, Service Status, Config last time Changed, Connector last time Changed, JMS Status, Email Status and EJB Timer Status.



The screenshot shows the Oracle Insurance Inbridge SoftRater Server - WebLogic interface. The left sidebar contains a tree view with the following items: IBSS, Config, Nodes, Services, SoftRater, SoftData, DBRuntime, SoftLibraries, INSRIDGE, NODE_1, NODE_2, NODE_3, NODE_4, and Help. The main content area displays the 'Nodes' page. At the top, there is a 'Reset Environment Configuration' section with a description and a 'Execute' button. Below this is the 'Inbridge Connector Service' section with a 'GET STATUS' button. The 'GET STATUS' button is highlighted. Below the button, there is a table with the following columns: Node Name, Node Status, Service, Config last time changed, Connector last time changed, JMS Status, Email Status, and EJB Timer Status. The table contains the following data:

Node Name	Node Status	Service	Config last time changed	Connector last time changed	JMS Status	Email Status	EJB Timer Status
INSRIDGE	Active	OFF	2016-12-08 01:21:58 PM	2016-11-22 12:19:27 PM	Success	Success	Success
NODE_1	Active	OFF	2016-11-17 04:12:07 PM	2016-11-22 12:19:27 PM	Error	Success	Success
NODE_2	Active	OFF	2016-11-17 04:12:07 PM	2016-11-22 12:19:27 PM	Error	Success	Success
NODE_3	Active	OFF	2016-11-17 04:12:07 PM	2016-11-22 12:19:27 PM	Error	Success	Success
NODE_4	Active	OFF	2016-11-17 04:12:07 PM	2016-11-22 12:19:27 PM	Error	Success	Success

Node Name

- This column shows the name of all the registered nodes.
- If the node is active (or up) then the Node Name appears as a hyperlink.
- Clicking the Node Name hyperlink opens a new IBSS page with information for that node.
- If the node is inactive (or down) then only the Node Name is displayed in the table.

Node Status

- This column shows the Node Status as **Active / Inactive** for all the registered nodes.
- If node is up then the Node Status cell value is **Active**.
- If node is down then the Node Status cell value is **Inactive**.

Service Status

- This column shows the Service Status as **ON / OFF / Unknown** for all the registered nodes.
- If node is active and Connector Service is in running state then the Service Status cell value is **ON**.
- If node is active and Connector Service is stopped then the Service Status cell value is **OFF**.
- If node is inactive then the Service Status cell value is **Unknown**.

Config Last Time Changed

- This column shows the last time the SoftRater config file was changed for all registered nodes. The date format is: **YYYY-MM-DD HH: MM:SS PM/AM**.
- The updated config properties for each node are reflected after starting the Insbridge Connector Service for all nodes or resetting the environments for all nodes.
- If a node is inactive (or down) then the Config Last Time Changed status cell value is ' – ' (dash).

Connector Last Time Changed

- This column shows the last time the connector properties were changed for all the registered nodes. The date format is: **YYYY-MM-DD HH: MM:SS PM/AM**.
- The updated connector properties for each node are reflected after starting the connector service for all the nodes or after resetting the environments of all nodes.
- If a node is inactive (or down) then the Connector Last Time Changed status cell value is ' – ' (dash).

JMS Status

- This column shows the JMS status as **Success / Error** for all the registered nodes.
- Check the JMS configuration setup values in Connector Properties section:
 - Go to **IBSS → Nodes → Services**
 - Click **Properties** button of on Insbridge Connector Services.
 - For **Success** status values must be:
 - **WebSphere**
 - **Context Factory:**
com.ibm.websphere.naming.WsnInitialContextFactory

- **Provider URL:** iiop://<ip address>:<port> [e.g.: iiop://localhost:9817]
- **WebLogic**
 - **Context Factory:** weblogic.jndi.WLInitialContextFactory
 - **Provider URL:** t3://<ip address>:<port> [e.g.: t3://localhost:7001]
- **JBoss**
 - **Context Factory:** org.jnp.interfaces.NamingContextFactory
 - **Provider URL:** jnp://<ip address>:<port> [e.g.: jnp://localhost:1099]
- If the above fields have the wrong data, then JMS status cell value will be **Error**.
- Updated JMS properties values for each node are reflected after starting or after resetting the connector service for all the nodes.
- If the node is inactive (or down) then JMS Status cell value is ' – ' (dash).

Email Status

- This column shows the Email Status as **Success / Error** for all the registered nodes.
- Check the SMTP configuration setup in Connector Properties section:
 - Go to **IBSS → Nodes → Services**
 - Click **Properties** button of on Insbridge Connector Services.
 - For **Success** status values must be:
 - **SMTP**
 - **SMTPS**
 - **JNDI**
 - If the above fields have the wrong data, then the Email Status cell value will be **Error**.
- Updated email properties for each node are reflected after starting or resetting the connector service for all the nodes.
- If the node is inactive (or down) then Email Status cell value is ' – ' (dash).

EJB Timer Status

- This column shows the last time the EJB Timer Status properties were changed for all the registered nodes. The date format is: **YYYY-MM-DD HH: MM:SS PM/AM**.
- The updated EJB Timer Status properties for each node are reflected after starting the connector service or after resetting the environments of all nodes.

- If a node is inactive (or down) then the EJB Timer Status cell value is ‘ – ‘ (dash).

Starting and Stopping All Nodes

- Start All Services:
 - Go to **IBSS → Nodes → Services** to start the connector services of all the nodes.
 - Click on Start for the Insbridge Connector Service.
- Reset All Environments:
 - Go to **IBSS → Nodes** to Reset the Environment of all the nodes.
 - Click on Execute. This resets all active nodes.

CONTACTING SUPPORT

If you need assistance with an Oracle Insurance Insbridge Enterprise Rating System product, please log a Service Request using My Oracle Support at <https://support.oracle.com/>.

Oracle customers have access to electronic support through My Oracle Support. You may be required to log in to Oracle support.

For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

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