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Insbridge Enterprise Rating Batch Setup Guide

Release 5.6.1

July 2020

Oracle Insurance Insbridge Enterprise Rating Using Batch Rating

Release 5.6.1

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CONTENTS

PREFACE

Welcome to the *Insbridge Enterprise Rating Batch Setup Guide*. 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 Apache TomEE application servers using Oracle 11g, 12c and, 19c databases only. IBM DB2 and Microsoft SQL Server cannot be used for batching in IBSS.

NOTE: You may have done some of these steps as part of your 5.6.0 setup.

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.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	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.

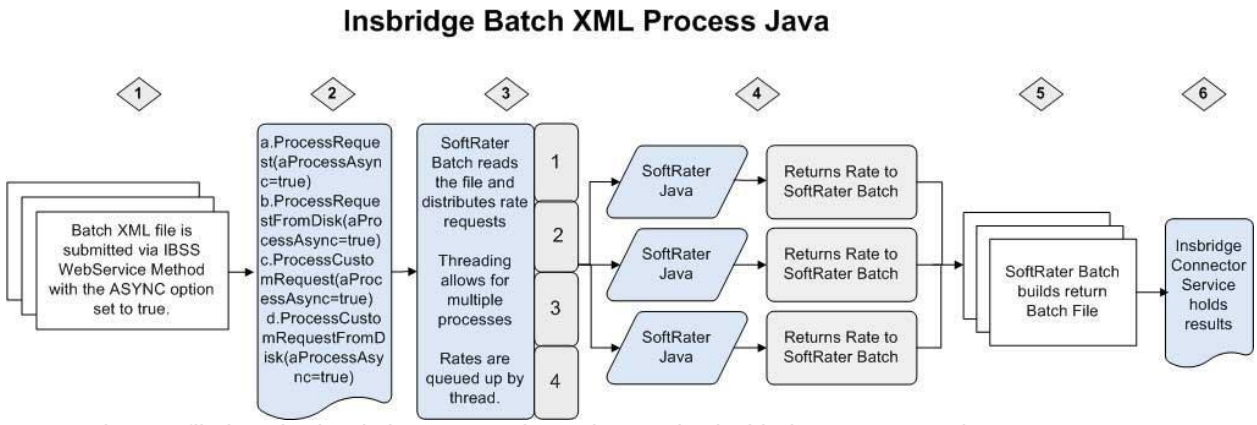
Edition	Publication Number	Product Version	Publication Date	Comment
1st Edition	P01-794-01	R 4.8	August 2014	Introduced for release 4.8
2nd Edition	P01-794-02	R 4.9	December 2014	Update release
3rd Edition	P01-794-03	R 5.0.1	August 2015	Update release
4th Edition	P01-794-04	R 5.1	December 2015	Update Release
5th Edition	P01-794-05	R 5.2	July 2016	Update Release
6th Edition	P01-794-06	R 5.4	January 2017	Update Release
7th Edition	P01-794-07	R 5.5	September 2017	Update Release
8th Edition	P01-794-08	R 5.6	August 2018	Update Release
9th Edition	P01-794-08	R 5.6.1	July 2020	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 Apache TomEE application servers using Oracle 11g, 12c and 19c 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, 12c (RAC) or Oracle 19c database as the store for the input files and the result files. After setting up your cluster on the enterprise application server Apache TomEE, 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.

Impact Analysis scripts need to be run to make the database ready for impact analysis. The DDL scripts for batch can be found in the scripts folder distributed as part of the 5.6.1 distribution.

1. Run the IBSS561IA20.1.zip file. Note: thi
2. Run the Schema script first.
3. Run the Procs script next.

NOTE: IBSS561IA20.1.zip is part of the 5.6.1 distribution.

Scripts must be run in order, 15, 16 then IBSS561IA20. 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, 19C
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 11*g* R2 Express Edition (Oracle XE) database. Oracle Database 11*g* XE is an entry-level, small-footprint database based on Oracle Database 11*g* 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	**(**Input XML file size**) / (**Sample Number of Policies**)**
Average Rating Result size	**(**Output XML file size**) / (**Sample Number of Ratings**)**
Input Storage per day	**(**Forecasted Number of Policies per day**) x (**Average Policy size**)**
Output Storage per day	**(**Forecasted Number of Ratings per day**) x (**Average Rating Result size**)**
Input Storage estimation	**(**Input Storage per day**) x (**Input Retention Duration**)**
Output Storage estimation	**(**Output Storage per day**) x (**Rating Result Retention Duration**)**
Approximate Line of business Database Size	**(**Input Storage estimation**) + (**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.

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.
  - Update scripts for Impact Analysis can be found in scripts folder distributed along with the media.

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.

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.

Application Server

The application server being used also has a setup.

- **Apache Tomee**
  - Setup Apache TomEE Server (Configurations)
  - HTTPS Configuration in the Apache Tomee
  - JMS Queue Configuration (Active MQ)
  - Remote SoftLibrary Configuration (OpenEJB)
  - Native SoftLibrary Configuration
  - Apache TomEE Clustering (As Required)
  - Configuring Heap Memory (As Required)

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.

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 OR Oracle 19 c 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 and impact analysis 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 and impact analysis 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 and impact analysis 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. Second run the IBSS50B20.16 Schema.sql and IBSS50B20.16 Procs.sql scripts and then run the IBSS561IA20.1 Schema.sql and IBSS561IA20.1 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, IBSS50B20.15 Procs.sql scripts, IBSS50B20.16 Schema.sql

and IBSS50B20.16 Procs.sql scripts and then run the IBSS561IA20.1 Schema.sql and IBSS561IA20.1 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, run the IBSS50B20.16 Schema.sql and IBSS50B20.16 Procs.sql scripts. Then run the IBSS561IA20.1 Schema.sql and IBSS561IA20.1 Procs.sql scripts. You need not 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.

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.

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/impexp

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 shared location> <host mount dir/impexp> -
o username=<username>, password=<password>, vers=2.0,
dir_mode=0777,file_mode=0777
```

```
[root@slcl7tsq insbridge]# mount -t cifs //                    Workfiles /scratch/insbridge/test -o user                  low,workgroup=oradev,vers=2.0,dir_mode=0777,file_mode=077
Password for                          /Workfiles:  ********
[root@slcl7tsq insbridge]# cd test
[root@slcl7tsq test]# ls -lrth
total 12K
-rwxrwxrwx 1 root root 9.1K May  7 04:48 TVExp1.xlsx
drwxrwxrwx 2 root root    0 May  7 23:02 Template
drwxrwxrwx 2 root root    0 Jun  5 00:30 Test
drwxrwxrwx 2 root root    0 Jun 10 02:54 Rating
drwxrwxrwx 2 root root    0 Jun 11 04:00 Releases
drwxrwxrwx 2 root root    0 Jun 11 04:02 Pricing
drwxrwxrwx 2 root root    0 Jun 16 06:27 Mappings
drwxrwxrwx 2 root root    0 Jun 17 00:20 ImportDataFiles
drwxrwxrwx 2 root root    0 Jun 23 04:54 Exports
drwxrwxrwx 2 root root    0 Jun 24 21:12 TableManagementFiles
[root@slcl7tsq test]#
```

Note: For windows server 2016 NFS mount works and follow the below steps to get the shared location mounted.

1. Install nfs server in your 2016 server through add roles and features wizard.
2. Share the windows location with NFS sharing and provide required permission (default is everyone can access).
3. Install nfs-utils package in Linux machine.
4. Mount the shared location with below command:

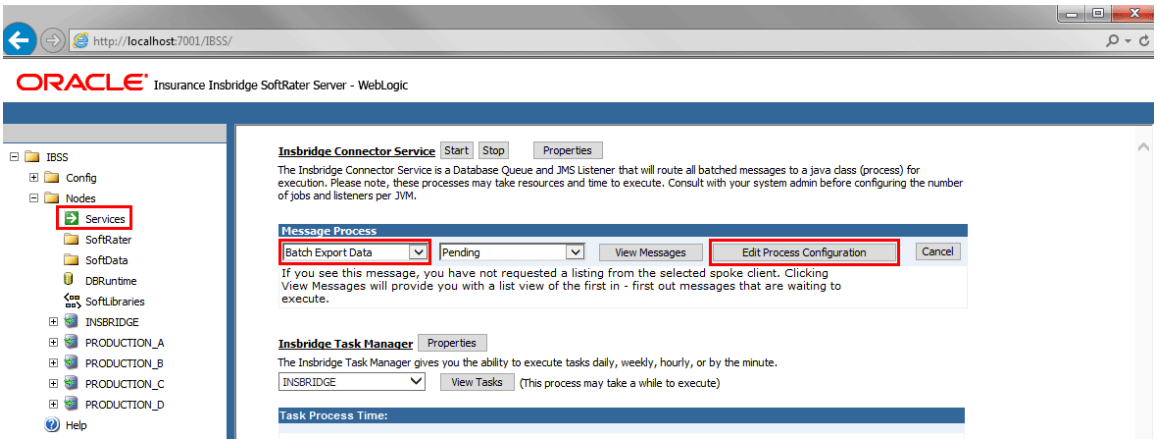
```
mount -t nfs <Source:/path> <Dest path>
```

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.

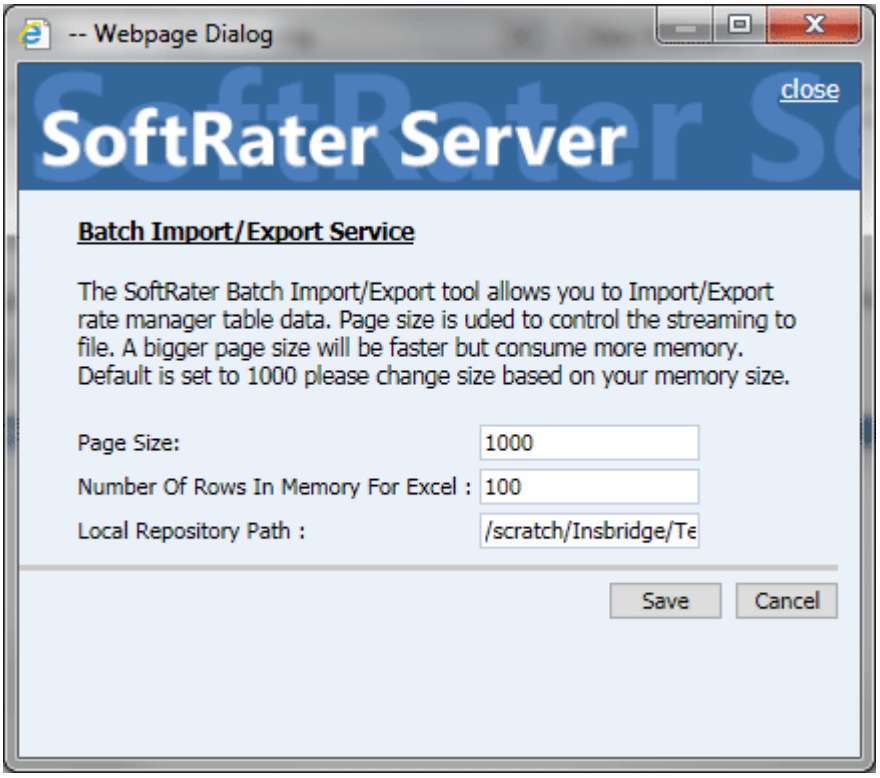
Localpath Configuration

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/impexp/TablemanagementFiles.

This field is case sensitive. Save and close.

CONFIGURING PROCESS - CONFIGURATION DETAILS

Setup Apache Tomee Server (Configuration)

- Download Apache TOMEE 8.0.1 Plume from: https://tomee.apache.org/download-ng.html
- Extract the zip file.

IBSS config File path Configurations

- Go to Apache Tomee installation **folder\conf**
- Open the file **catalina.properties** file and add the following lines at the end of the file:

```
INSBRIDGE_INSTANCE_APP_DIR=c:/insbridge/logs
INSBRIDGE_APP_DIR=c:/Insbridge
```

insbridge.net.softraterconfig.xml file

- Change the engine_type = ”tomee”

For Example: <softrater datelastmod="2020-03-12 03:08:47 PM" engine_type="tomee" format_version="3.0" softdata_version="SoftData Version 1" version="SoftRater Version 3">

System.properties Configurations

Open **system.properties** in the **Tomee/conf** folder:

- To load the **com.oracle packages** add the following:

```
openejb.classloader.forced-load=com.oracle
```

NOTE: Apache Tomee does not load the package with name "Oracle". For Example: com.oracle.ins.ru.sr.ejb.esi

- Comment the black listing of **tomee.serialization.class** and add the following for whitelisting

```
#tomee.serialization.class.blacklist = *
tomee.serialization.class.whitelist = *
```

Build IBSS Ear

- Open **IBSS_BUILD_1.8.bat**
- Change the set **BASE_DIR=C:\IBSS561\codebase\IBSS561** (to the location of your source code)
- Run the **IBSS_BUILD_1.8.bat**
- New **EAR** will be placed in the **C:\IBSS561\Builds\{build number}** folder

Deploy IBSS to Apache TOMEE-- Standalone windows installation

- Stop the **Apache TomEE** server if it is running
- Delete the **IBSS.ear** and **IBSS** folder under **\webapps** directory in the Apache TomEE installation folder
- Copy the new **EAR** to the **\webapps** folder in the Apache TomEE installation folder
- Start the **Apache TomEE** server **tomee\bin\startup.bat**
- The **EAR** will be extracted to the **IBSS** folder under the **webapps**
- The IBSS can be accessed from the url: http://<your IBSS server:port>/IBSS/index.jsp

HTTPS CONFIGURATION FOR APACHE TOMEE

Create security keystore

Create a new directory keystore in the Apache TomEE home directory and run the commands from that directory in command prompt.

Create Keystore

```
%JAVA_HOME%/bin/keytool -genkey -alias ibsscert -keyalg RSA -keypass
proagent -keystore identity.jks -storepass proagent -validity 365
```

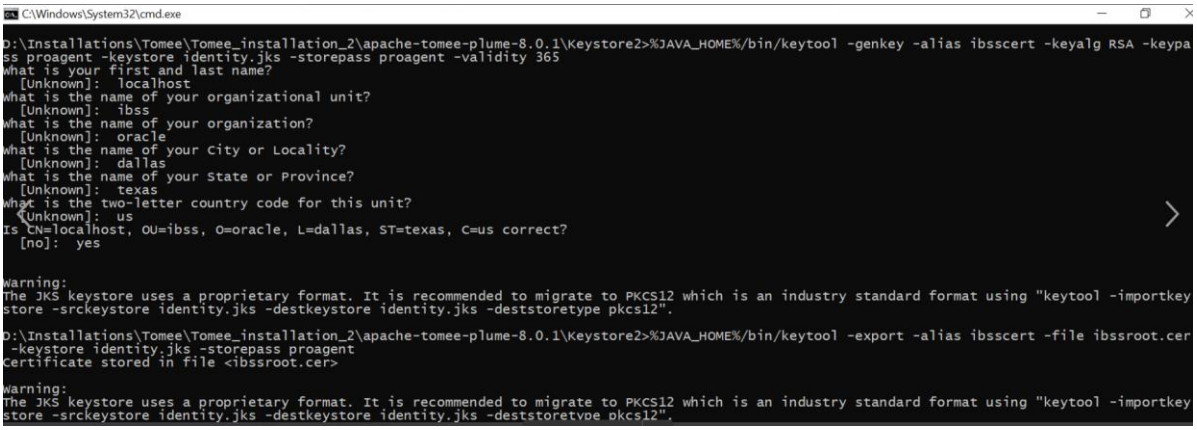
Note: For the first name and last name ensure to give the machines fully qualified name.
ex: slc09til.us.oracle.com

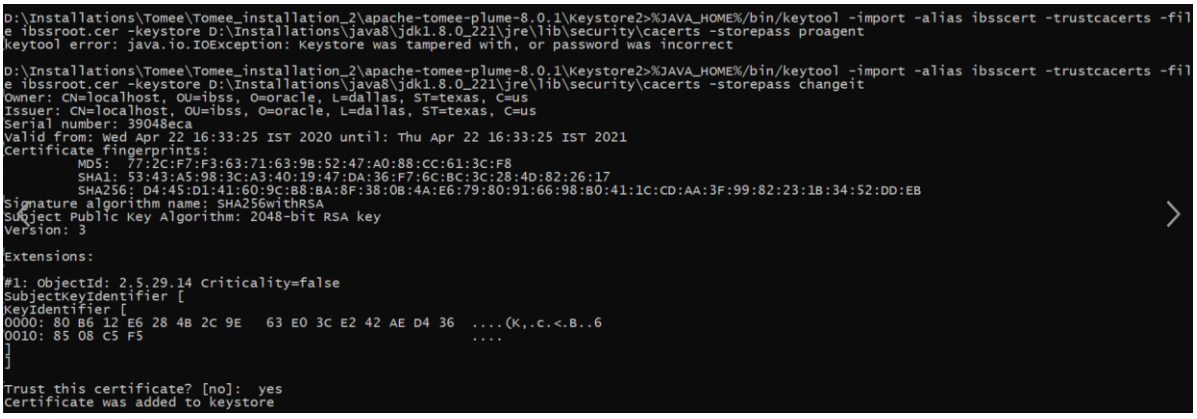
Create Certificate

```
%JAVA_HOME%/bin/keytool -export -alias ibsscert -file ibssroot.cer -
keystore identity.jks -storepass proagent
```

Import Certificate to Java cacerts

```
%JAVA_HOME%/bin/keytool -import -alias ibsscert -trustcacerts -file
ibssroot.cer -keystore
D:\Installations\java8\jdk1.8.0_221\jre\lib\security\cacerts -storepass
changeit
```





Edit Server.xml

- Open the server.xml file in the TomEE/conf
- Add the following details to the file:

```
<Connector
protocol="org.apache.coyote.http11.Http11NioProtocol"
port="8443" maxThreads="200"
scheme="https" secure="true" SSLEnabled="true"
keystoreFile="./keystore/identity.jks"
keystorePass="proagent"
clientAuth="false" sslProtocol="TLS"/>
```

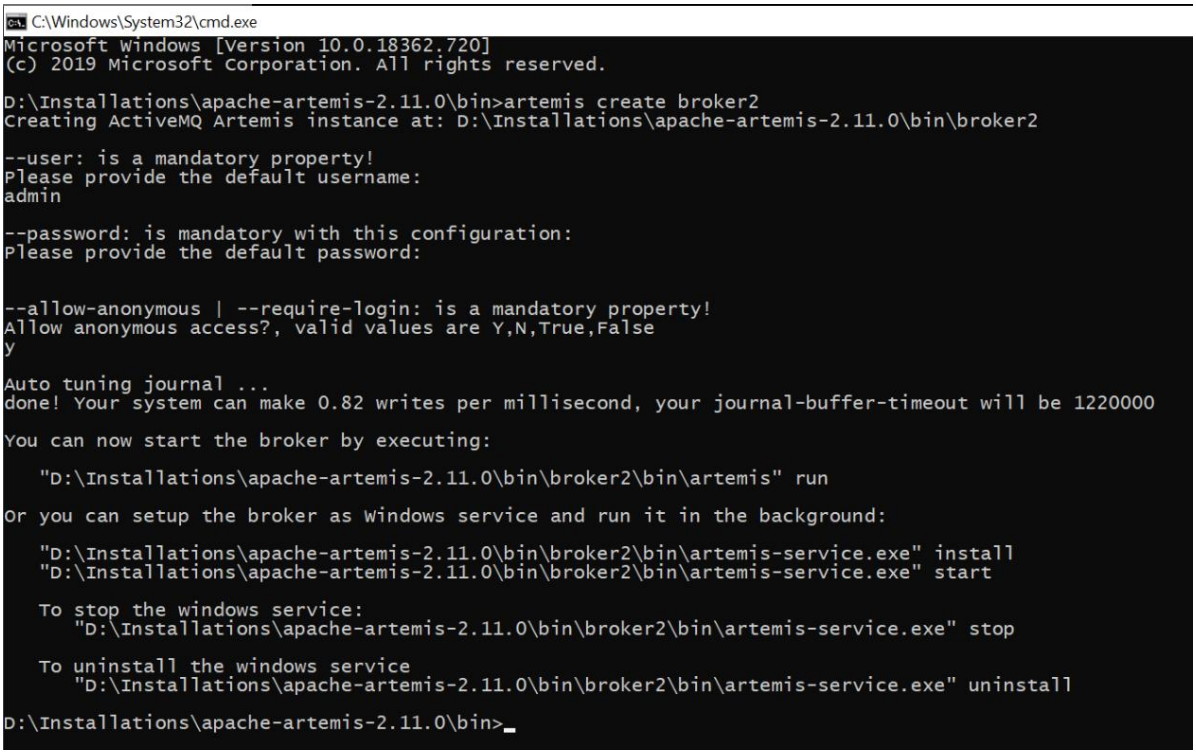
- Restart the server

JMS Queues Setup

Download the Apache ActiveMQ (ActiveMQ Artemis 2.13.0 (May 26, 2020)):
https://activemq.apache.org/components/artemis/download/

Installing Apache Active MQ

a. Extract the **Apache Active MQ** to a specific folder
b. Navigate to bin folder and execute the below command to create a **Broker:**
   `artemis create broker2`
c. Enter the username (For example: admin)
d. Enter the password (For example: admin)
e. Enter **y** for universal access



- Open broker.xml inside the broker created in the location under broker2/etc folder
- Enter the below details inside the address tag:

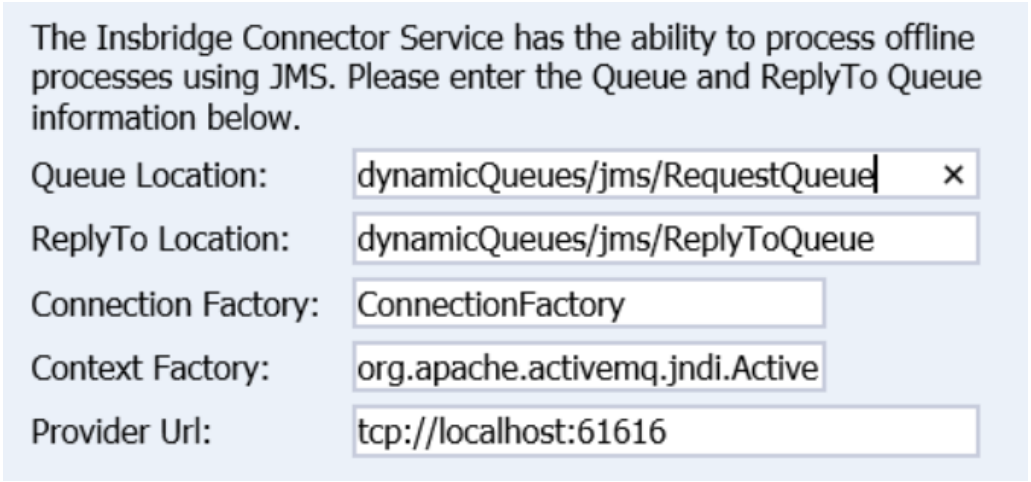
```
<address name="ReplyToQueue">
<anycast>
<queue name="ReplyToQueue" />
</anycast>
</address>
<address name="RequestQueue">
```

```
<anycast>
<queue name="RequestQueue" />
</anycast>
</address>
```

```
      <auto-create-addresses>true</auto-create-addresses>
      <auto-create-jms-queues>true</auto-create-jms-queues>
      <auto-create-jms-topics>true</auto-create-jms-topics>
   </address-setting>
</address-settings>

<addresses>
   <address name="DLQ">
      <anycast>
         <queue name="DLQ" />
      </anycast>
   </address>
   <address name="ExpiryQueue">
      <anycast>
         <queue name="ExpiryQueue" />
      </anycast>
   </address>
   <address name="ReplyToQueue">
      <anycast>
         <queue name="ReplyToQueue" />
      </anycast>
   </address>
   <address name="RequestQueue">
      <anycast>
         <queue name="RequestQueue" />
      </anycast>
   </address>

</addresses>


<!-- Uncomment the following if you want to use the Standard LoggingActiveMQServerPlugin pluging to log in events
<broker-plugins>
   <broker-plugin class-name="org.apache.activemq.artemis.core.server.plugin.impl.LoggingActiveMQServerPlugin">
      <property key="LOG_ALL_EVENTS" value="true"/>
      <property key="LOG_CONNECTION_EVENTS" value="true"/>
```

1. Start the Broker using the following command:
   `artemis.cmd run`

   For Example: D:\Installations\apache-artemis-2.11.0\bin\broker1\bin>artemis.cmd run
2. The home page for the **Activemq** is: http://localhost:8161/console
3. Login using the credentials used while creating the **Broker** (For example: admin/admin)
4. Log in to **IBSS URL** and enter the following details:
   a. **Queue Location**: dynamicQueues/jms/RequestQueue
   b. **ReplyTo Location**: dynamicQueues/jms/ReplyToQueue
   c. **Connection Factory**: ConnectionFactory
   d. **Context Factory**: org.apache.activemq.jndi.ActiveMQInitialContextFactory
   e. **Provider Url**: tcp://localhost:61616



JNDI (Remote) SoftLibrary Configuration

Open EJB 3 Installation

Download Open ejb 8.0.1 from the below location and extract:
https://www.apache.org/dyn/closer.cgi/tomee/tomee-8.0.1/openejb-standalone-8.0.1.zip

Starting Open Ejb 8.0.1

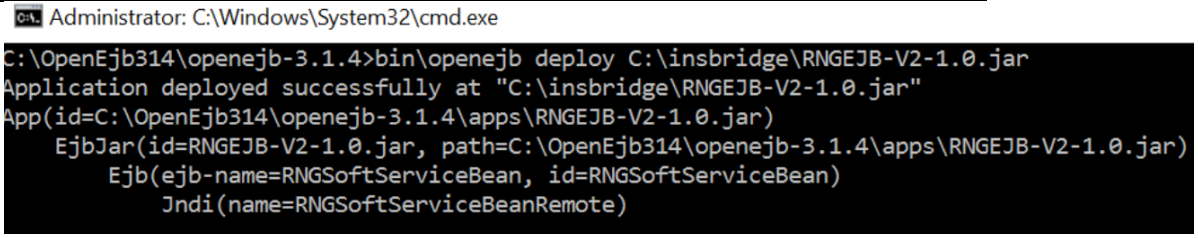
- Open the command prompt and navigate to **OpenEjbe8.0.1** installation
- Use the command **openejb** start to start the **OpenEjbe8.0.1server**

For Example: C:\OpenEjbe8.0.1\bin>openejb start

Deploying SoftLibrary to OpenEjb

- Copy the **EJB Jar** to a specific folder (For example: c:\insbridge)
- Update the **System.properties** file in the **conf** folder with the following details:
  `openejb.classloader.forced-load=com.oracle`
- Navigate to the **openejb** folder and execute the below command to deploy the **ejb** jar
  `bin\openejb deploy C:\insbridge\RNGEJB-V2-1.0.jar`

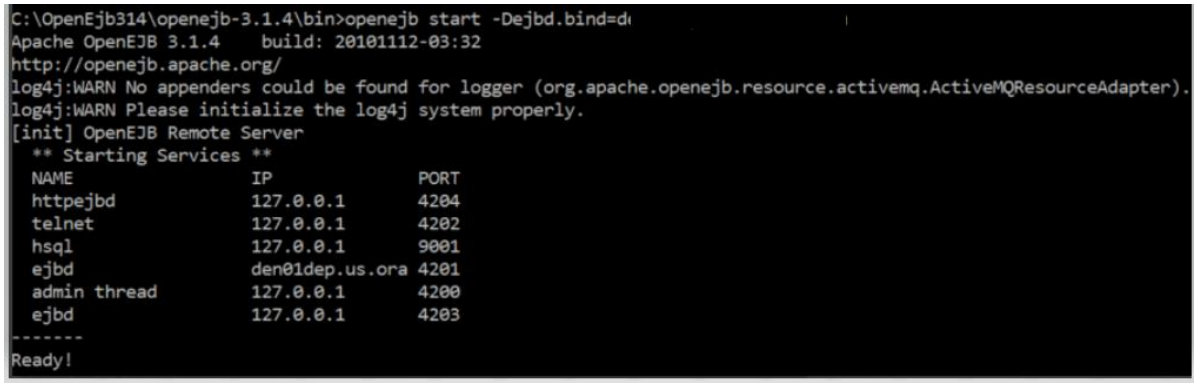
For Example: C:\OpenEjbe8.0.1\openejb-3.1.4>bin\openejb deploy C:\insbridge\RNGEJB-V2-1.0.jar



Binding the machine name to OpenEjb server

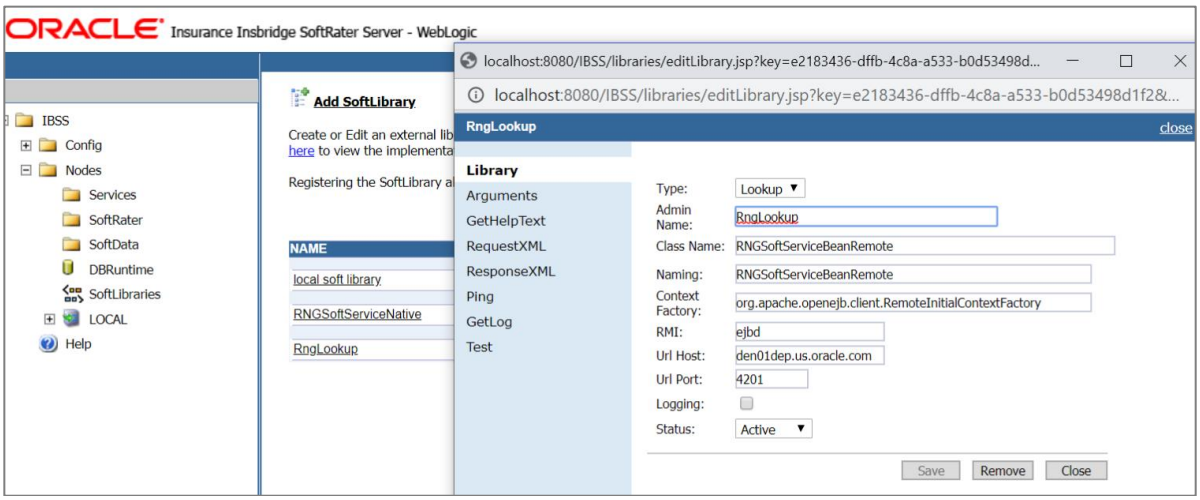
- Navigate to the **OpenEjb Bin** folder and execute the below command
  `openejb start -Dejbd.bind=<your IBSS server name>`

Example: C:\OpenEjbe8.0.1\bin>openejb start -Dejbd.bind=<server.abc.com>



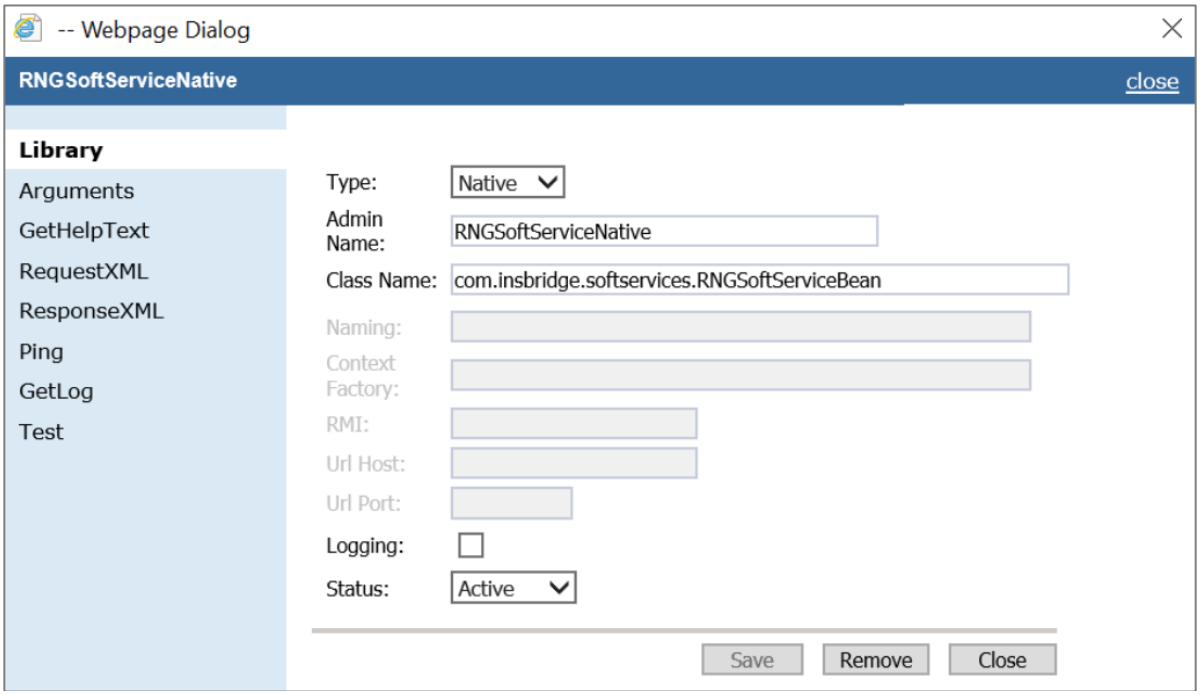
Setting up Remote SoftLibrary in IBSS

- Navigate to the **SoftLibraries** → **Add SoftLibrary**
- Choose Type as **LookUp** and enter the details as shown in the following figure:

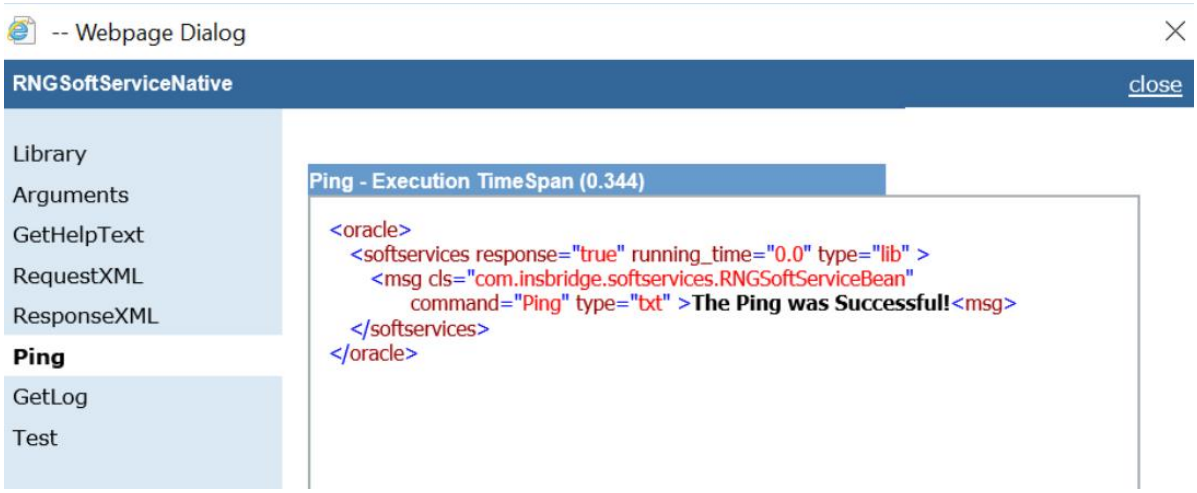


Native SoftLibrary Configuration

- Copy the Soft Library Jar to the tomee/lib folder
- Open Soft Library page in the IBSS and enter the SoftLibrary details as given below: (<your IBSS server:port/ IBSS>)
- For the above jar the class Name is `com.insbridge.softservices.rng.RNGTESTRK`



Test Soft Library by pinging the SoftLibrary Option


-- Webpage Dialog
RNGSoftServiceNative
close
Library
Arguments
GetHelpText
RequestXML
ResponseXML
Ping
GetLog
Test
Ping - Execution TimeSpan (0.344)
<oracle>
<softservices response="true" running_time="0.0" type="lib" >
<msg cls="com.insbridge.softservices.RNGSoftServiceBean"
command="Ping" type="txt" >The Ping was Successful!<msg>
</softservices>
</oracle>

Troubleshoot Log4j2

If while implementing the Log4j logging in softlibrary on TOMEE and customer faces issues as below

```
ERROR StatusLogger Unrecognized format specifier [d]
ERROR StatusLogger Unrecognized conversion specifier [d] starting at position 16 in conversion pattern.
ERROR StatusLogger Unrecognized format specifier [thread]
ERROR StatusLogger Unrecognized conversion specifier [thread] starting at position 25 in conversion pattern.
ERROR StatusLogger Unrecognized format specifier [level]
```

Follow the below steps to implement the LOG4J 2 in soft Library

Create log4j2.xml

```
<Configuration status="warn">
   <Properties>
      <Property name="error_maxSize">100 MB</Property>
      <Property name="audit_maxSize">100 MB</Property>
   </Properties>
   <Appenders>
      <RollingFile name="sl" fileName="c:/logs/SL-LOGS-WithXML.log"
      filePattern="c:/logs/softlibrary1-%d{MM-dd-yyyy}-%i.log.gz">
         <PatternLayout>
            <pattern>%d - %c{1} - %p - %m%n</pattern>
               </PatternLayout>
                  <Policies>
                     <SizeBasedTriggeringPolicy
                     size="${sys:error_maxSize}"/>
                  </Policies>
               <DefaultRolloverStrategy max="1"/>
               </RollingFile>
               <!-- Console appender configuration -->
            <Console name="stdout" target="SYSTEM_OUT">
         <PatternLayout pattern="%d [%-5p] [%t] (%c{1}) - %m%n"/>
      </Console>
   </Appenders>
   <Loggers>
      <Logger name="com.log.SoftLibraryLogger" level="ALL"
      additivity="false">
         <appender-ref ref="sl" level="ALL"/>
      </Logger>
      <Root level="INFO" additivity="false">
         <appender-ref ref="stdout"/>
      </Root>
   </Loggers>
</Configuration>
```

Creating a New Wrapper Class

Create a new wrapper class that will implement the logging for the soft library.

Ex: SoftLibraryLogger

Note: The above logger is mapped in the log4j2.xml file with ref="sl"

Sample code to setup the Logger:

```
public class SoftLibraryLogger {
    private Logger logger;
    String logappender = "";
    private static boolean isLog4jInitialised = false;
    private static SoftLibraryLogger instance;
    public static SoftLibraryLogger getInstance() {
        if (instance == null) {
            instance = new SoftLibraryLogger();
            instance.initLog4j();
        }
        return instance;
        }
    public void initLog4j() {
        logappender = getLogAppender();
            logger = LogManager.getLogger(this.getClass());
            if (!isLog4jInitialised) {
                isLog4jInitialised = true;
                }
            }
        }
    public String getLogAppender() {
    return "sl";
    }
```

Updating the pom.xml with log4j2 maven dependencies

```
<dependency>
    <groupId>org.apache.logging.log4j</groupId>
    <artifactId>log4j-api</artifactId>
    <version>2.17.1</version>
</dependency>
<dependency>
    <groupId>org.apache.logging.log4j</groupId>
    <artifactId>log4j-core</artifactId>
    <version>2.17.1</version>
</dependency>
```

Updating the build element in pom.xml

- Explicitly exclude Log4j2Plugins.dat
- Use maven-shade-plugin to create a shaded Jar

```
<build>
<sourceDirectory>src/</sourceDirectory>
    <resources>
        <resource>
            <directory>${basedir}</directory>
        <includes>
            <include>*</include>
        </includes>
        </resource>
    </resources>
<outputDirectory>classes/</outputDirectory>
```

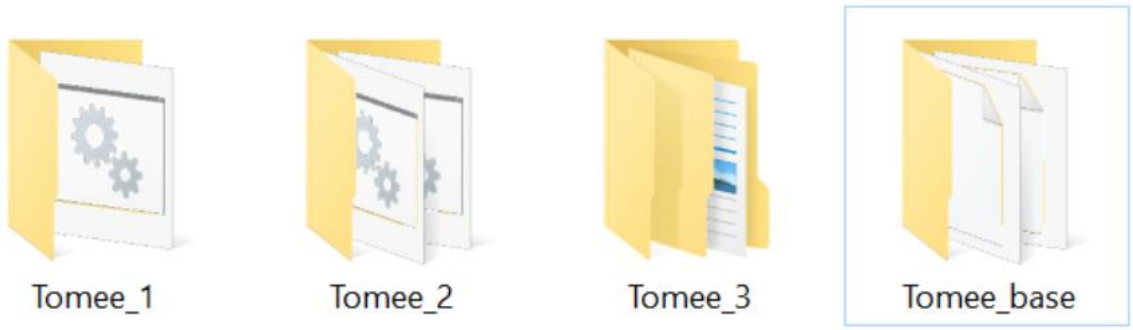
```
    <plugins>
          <plugin>
             <groupId>org.apache.maven.plugins</groupId>
                <artifactId>maven-shade-plugin</artifactId>
                <version>2.3</version>
                <executions>
                   <!-- Run shade goal on package phase -->
                   <execution>
                      <phase>package</phase>
                      <goals>
                         <goal>shade</goal>
                         </goals>
                         <configuration>
                           <transformers> <!-- add Main-Class to
                         manifest file -->
                             <transformer
                         implementation="org.apache.maven.plugins.shade.
                         resource.ManifestResourceTransformer"></transfo
                         rmer>
                           </transformers>
                         <filters>
                           <filter>
                             <artifact>*:*</artifact>
                         <excludes>
                           <exclude>**/Log4j2Plugins.dat</exclude>
                        </excludes>
                      </filter>
                   </filters>
                </configuration>
             </execution>
          </executions>
    </plugin>
       <plugin>
          <groupId>org.apache.maven.plugins</groupId>
          <artifactId>maven-compiler-plugin</artifactId>
          <version>2.3.2</version>
          <configuration>
          <source>1.8</source>
          <target>1.8</target>
          </configuration>
       </plugin>
    </plugins>
</build>
```

Create a Maven build and use the shaded jar to test the soft library by configuring it as per the guide.

Apache TomEE Cluster- Multiple Nodes (Standalone)

Host multiple Apache TomEE instances from single Installation

Download Apache TomEE and extract to a folder (Tomee_base)



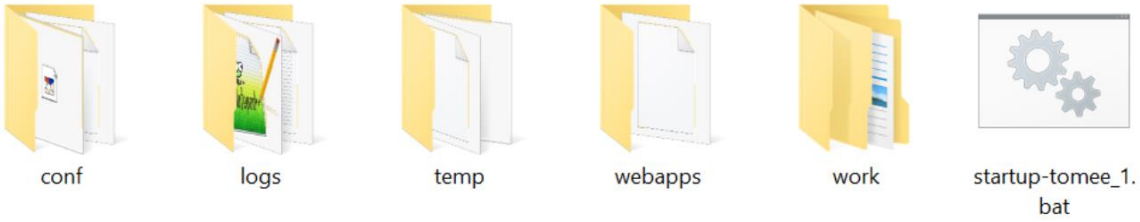
Copy the following folders from Tomee_base to a new Folder (Tomee_1) to create a new instance of Tomee_base

Name	Date modified	Type	Size
conf	5/6/2020 9:32 AM	File folder	
logs	5/6/2020 9:32 AM	File folder	
temp	5/6/2020 10:01 AM	File folder	
webapps	5/6/2020 10:01 AM	File folder	
work	5/6/2020 9:32 AM	File folder	

Create a new startup-tomee1.bat file in the new Apache TomEE home location (Tomee_1) and following is the content of the startup-tomee1.bat file

```
set
CATALINA_HOME=D:\Installations\Tomee\TomeeMultipleInstances\Tomee_home
set CATALINA_BASE=D:\Installations\Tomee\TomeeMultipleInstances\Tomee_1
D:\Installations\Tomee\TomeeMultipleInstances\Tomee_home\bin\startup.bat
```

The folder structure for the tomee_1 instance should be similar to the folder structure as shown in the following figure:



Add additional Apache TomEE instances as required

Soft library in Multiple Apache TomEE instances

- Place the native SoftLibrary jar in the Tomee_base/lib folder.
- The jars present in the tomee_base is available in the class path for all the tomee instances.

Configure Heap Memory in Apache TomEE

To configure an appropriate heap memory and perm gen size, you have to create a file named setenv.sh in a UNIX environment or setenv.bat in Windows.

By default, this file is not included in the Apache TomEE installation packages, so you need to manually create for customizing the default configuration.

UNIX Environment

1. Create a new script file called **setenv.sh** under the `$CATALINA_HOME/bin` directory with the following contents:
   `setenv.sh`

   ```
   export JAVA_OPTS="-Dfile.encoding=UTF-8 -Xms256m -Xmx2048m -
   XX:PermSize=256m -XX:MaxPermSize=1024m"
   ```

   - Xms: This is the initial and minimum Java heap size in megabytes. By default, there is no value specified for this field. The heap is basically the memory space which holds all the objects created by your application.
   - Xmx: The maximum Java heap size in megabytes. By default, the maximum heap size value is 256 MB.
   - XX:PermSize: This is the initial size for permanent generation (or perm gen). It is the place where TomEE caches classes and other resources in the memory.
   - XX:MaxPermSize: The maximum permanent generation size.

2. Save the file and then restart the Apache TomEE server to apply the changes.

Windows Environment

1. Create a new script file called `setenv.bat` under `$CATALINA_HOME/bin` directory with the following contents:
   `setenv.bat`

   ```
   export JAVA_OPTS="-Dfile.encoding=UTF-8 -Xms256m -Xmx2048m -
   XX:PermSize=256m -XX:MaxPermSize=1024m"
   ```

2. Once the file is created successfully, restart the Apache TomEE server to apply the changes.

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 the "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 **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 the "Enter Request XML text or file path below:", select XML and paste the rateDoc in the text field.
4. Under the ProcessAsync, select Async Processing as **Off**.
5. Under the Optional Rate Operators, type the Environment Name in the text box.
6. Under the 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 **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 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. Enviroment 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. Open IBSS application in another window.

20. Navigate to **IBSS→ Nodes → <Node_Name>**(Node which was selected to execute)**-> Services**
21. Start the Insbridge Connector Service by clicking **Start**.
22. 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 the "Enter Request XML text or file path below:" select XML and paste the rateDoc in the text field.
4. Under the ProcessAsync, select Async Processing as "**Off**"
5. Under the Optional Rate Operators, type the Environment Name in the text box.
6. Under the 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. 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 **View Messages.**
13. The table should display the request that was just submitted to db.
14. Start the Insbridge Connector Service by clicking **Start**.
15. Click **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. 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 click 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 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. T**he 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.

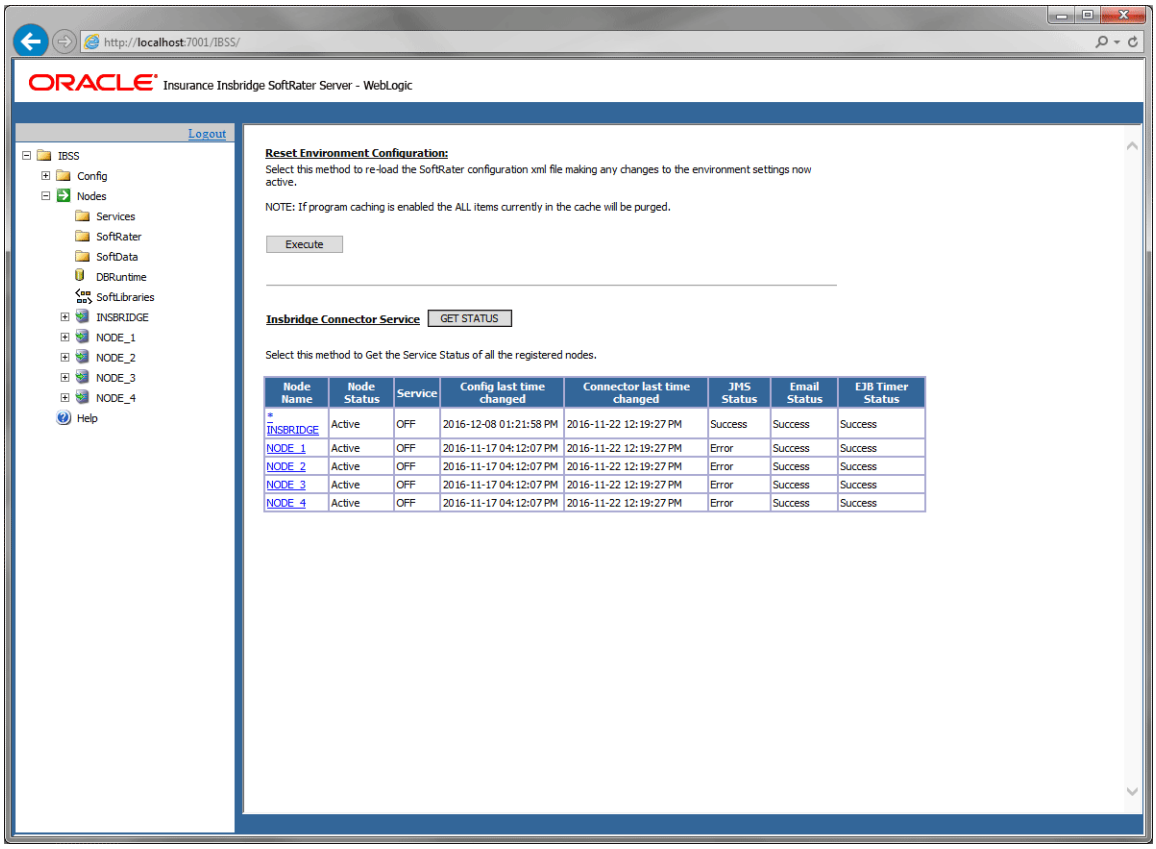
Upon completion of rating, the response will be sent to the email address that was entered in the ESI-Tester screen.

STATUS TABLE DEFINITIONS

The status table presents the current information regarding the node.

Getting Status

1. Navigate to **IBSS → Nodes**.
2. Click **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.



Node Name	Node Status	Service	Config last time changed	Connector last time changed	JMS Status	Email Status	EJB Timer Status
* INSBRIDGE	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.
- Click the Node Name hyperlink, it 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:
    - **Apache TomEE**
      - **Queue Location**: dynamicQueues/jms/RequestQueue
      - **ReplyTo Location**: dynamicQueues/jms/ReplyToQueue
      - **Connection Factory**: ConnectionFactory
      - **Context Factory**: org.apache.activemq.jndi.ActiveMQInitialContextFactory
      - **Provider Url**: tcp://localhost:61616
  - 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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Index