ORACLE
INSURANCE

Oracle Insurance

Insbridge Enterprise Rating

SoftRater for JBoss Installation Guide

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Oracle Insurance Insbridge Enterprise Rating SoftRater for JBoss Installation Guide

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PREFACE

Welcome to the *Oracle Insurance Insbridge Enterprise Rating SoftRater for JBoss Installation Guide*. This guide describes how to install and configure SoftRater for JBoss. SoftRater may be used in conjunction with the Oracle Insurance Insbridge Enterprise Rating RateManager (RateManager) system to process rating requests or it may stand alone.

The Insbridge SoftRater Server (IBSS) is the container for all Insbridge web components including the SoftRater Engine. All independent Insbridge components will be contained in the IBSS.

AUDIENCE

This guide is intended for technical personnel, such as installers, system administrators and others tasked with configuring SoftRater that would be involved in the maintenance and operation of SoftRater or RateManager. The audience for this guide should have a thorough knowledge of JBoss.

PLANNING YOUR INSBRIDGE SYSTEM

Prior to installation, you should have an idea of the type of setup you want to create. What kind of equipment do you have available and how many environments do you need? If you do not have everything completely planned out, you can still proceed. Environments can be removed or added later on. The Oracle Insurance Insbridge Enterprise Rating system (Insbridge) is expandable and can accommodate a few different configurations.

For more on planning your Insbridge system, please see the Insbridge Planning Guide.

TYPES OF INSTALLATION

There are various types of installations:

RateManager Installation

- **RateManager for Windows** – Installs RateManager and the Insbridge Framework Administrator (IBFA) in a Windows environment and utilizes IBFA for local rating. This Windows only environment uses a SQL Server database.

SoftRater Installation

- **SoftRater for Java Installation** – Deploys Insbridge SoftRater Server (IBSS) to an application server; WebLogic, WebSphere or JBoss, using a SQL Server database, or an Oracle database, or a DB2 database.
- **SoftRater for Windows Node** – This installation is for existing environments that want to add a SoftRater for Windows node to an environment. This is for a Windows only environment using a SQL Server database.

Upgrading a Current Installation

- **Upgrade** – This installation is for existing customers and will take their current version of Insbridge up to version 04.09.00.

This guide is for a Full SoftRater for Java Installation utilizing JBoss.

Definitions

Some commonly used terms when installing or using the Oracle Insurance Insbridge Enterprise Rating system:

- **IBER:** Insbridge Enterprise Rating System. This is the entire system.
- **IBFA:** Insbridge Framework Administrator. IBFA is an administrative tool used to configure Insbridge applications and setup RateManager database connections. IBFA will be located on a Windows Server machine. IBFA/SR-WIN is an Insbridge Framework Administrator/SoftRater for Windows.
- **IBSS:** Insbridge SoftRater Server. IBSS is the administrative tool for the SoftRater engine. The SoftRater engine is a multi-platform component within Insbridge that executes the rules, rating and underwriting instructions as defined by the user in RateManager. IBSS is usually located on a Java machine. IBSS/SR-JAVA is an Insbridge SoftRater Server/SoftRater for Java.
- **SoftRater Node:** A SoftRater node is either an IBFA (without RateManager) or IBSS instance on a physical environment.
- **SoftRater Native:** SoftRater Native is a remote instance of SoftRater that can execute rules and rating logic in environments where access via the SoftRater web-services is not desired or possible.
- **RM:** RateManager. RateManager is a component within Insbridge that enables users to manage the product definition and modification process, including rating and underwriting logic.
- **SR:** SoftRater. The engine that executes the rating, rules and underwriting instructions defined within RateManager. The rating environment for runtime execution and processing of business content. SoftRater can be further defined by the operating system where it has been loaded.
- **SR-WIN:** SoftRater for Windows. This is also another name for IBFA.
- **SR-JAVA:** SoftRater for Java. This is also another name for IBSS.

- **SRP:** SoftRater Packages. A package that holds all the RateManager logic for a specific program and version.
- **VFS:** Virtual File Servers. Virtual file server management allows you to access environments that are located on other machines in different locations where packages can be downloaded.
- **Package Location:** A pointer to a location where SoftRater Packages (SRP's) are stored.
- **Physical Environment:** A physical environment is generally referred to as a physical machine.
- **Authoring Environment:** The physical machine where RateManager is installed.
- **Rating Environment:** The physical machine(s) where SoftRater is installed. This is typically the same as a SoftRater node.
- **Logical Environment:** An environment created for a subscriber in IBFA. It defines package location, engine location and database location in addition to several other supporting data items. This environment is used for rating and/or SRP management. Each database connection will have a logical environment.

RELATED DOCUMENTS

For more information, refer to the following Oracle resources:

- The Oracle Insurance Insbridge Enterprise Rating Framework Administrator Guide.
- The Oracle Insurance Insbridge Enterprise Rating SoftRater Server Guide.
- You can view these guides in-line at this address:

  http://www.oracle.com/technology/documentation/insurance.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	P01-773-01	V 3.11.01	December 2008	Initial release
2nd Edition	P01-773-02	V 3.12.0	July 2009	Update Version
3rd Edition	P01-773-03	V 3.13.0	December 2009	Update to 3.13
4th Edition	P01-773-04	R 4.0	April 2010	Update to 4.0
5th Edition	P01-773-05	R 4.0.1	August 2010	Update Release
6th Edition	P01-773-06	R 4.1	December 2010	Update Release
7th Edition	P01-773-07	R 4.5	May 2011	Update Release
8th Edition	P01-773-08	R 4.5.1	September 2011	Update Release
9th Edition	P01-773-09	R 4.6	May 2012	Update Release
10th Edition	P01-773-10	R 4.6.1	November 2012	Update Release
11th Edition	P01-773-11	R 4.7	September 2013	Update Release
12th Edition	P01-773-12	R 4.7.1	November 2013	Update Release
13th Edition	P01-773-13	R 4.8	August 2014	Update Release JBoss 6
14th Edition	P01-773-14	R 4.9	December 2014	Update Release

Chapter 1

SYSTEM REQUIREMENTS

For minimum operating system and hardware requirements, please see the Hardware Software requirements guide.

Prior to creating a new SoftRater environment, please have ready:

- **Full JBoss installation**
- **Access to the server where JBoss was installed**
- **Database name or Environment name**
- **Database login information**
- **Database server name, either IP or DNS**
- **Database DDL, updates or backup files for the database you want to utilize. These files are located in the 04.09.00 Insbridge windows folder.**
- **If utilizing Oracle, DB Catalog name, port number, DB Schema name**
- **If utilizing DB2, DB Catalog name, port number, query block size (heap), DB Schema name**
- **Subscriber ID created in IBFA**
- **Access to the server where the Insbridge system was installed**
- **URL of the current IBFA**
- **Package location where you want the packages stored**

These components will be needed at various times during the installation and implementation of SoftRater for JBoss.

Development Notes

Please be aware of the following items:

1. SoftRater for JBoss supports:

   Version: 7.1.1
   Version Name: FINAL
   Built on: 2012-03-09

IMPORTANT: *JBoss 7.1.1.FINAL Does not support Batch features. Use JBoss 6 EAP for Batch.*

Version: 6 EAP – Enterprise edition

Go to the JBoss server web-console to verify the version, i.e., http://<ServerName>:9990/web-console.

IMPORTANT: *Java SE 6 or later is required.*

2. It is suggested that you use **Java SE 6 or later** with JBoss 7.1.1. You can find the download for Java SE 6 from Oracle Sun's website: http://www.oracle.com/technetwork/java/javase/downloads/java-archive-downloads-javase6-419409.html, select the **Java SE 6** for your environment.

ORACLE SOFTWARE DELIVERY CLOUD

Prior to installation, please make sure the source machine(s) where Insbridge will be loaded has an unzip utility. An unzip utility for most platforms is available on the Oracle Software Delivery Cloud download page.

Documentation from Oracle Software Delivery Cloud is in PDF format. Prior to installation, please make sure the source machine(s) where Insbridge documentation will be loaded has a PDF reader.

Files are downloaded with part numbers as file names. Please make note of the part numbers you have downloaded and the corresponding file name. You may be asked to provide the part numbers or the filename if you contact Oracle Insurance Support.

The installation downloads you can select are:

- **Insbridge Insbridge Install** – Required for all RateManager installations
- **SoftRater for WebSphere** – Required if you are using WebSphere
- **SoftRater for WebLogic** – Required if you are using WebLogic
- **SoftRater for JBoss** – Required if you are using JBoss
- **Documentation** – It is recommended that you download the documentation. Installation guides and user guides are located here.

The 04.09.00-Insbridge-windows folder contents:

- **Databases**
  - DB2
    - SoftRater**:** IBSR
      - DDLs
      - Update: usp_IBSR_v04.07.00.db2
  - Oracle
    - SoftRater**:** IBSR
      - DDL
      - Update: usp_IBSR_v04.07.00.oracle
  - SQL Server
    - RateManager**:** IBRM

    - Latin1_General_BIN
        - DATABASE_BACKUP_IBRM_TEMPLATE_CASE_SENSITIVE.bak
    - SQL_Latin1_General_CP1_CI_AS
        - DATABASE_BACKUP_IBRM_TEMPLATE.bak
- Security**:** IB_CLIENT
    - SQL_Latin1_General_CP1_CI_AS
        - DATABASE_BACKUP_IB_CLIENT_TEMPLATE.bak
- SoftRater**:** IBSR
    - Latin1_General_BIN
        - DATABASE_BACKUP_IBSR_TEMPLATE_CASE_SENSITIVE.bak
    - SQL_Latin1_General_CP1_CI_AS
        - DATABASE_BACKUP_IBSR_TEMPLATE.bak
    - Update: usp_IBSR_v04.05.01.sql
    - Update: usp_IBSR_v04.06.00.01.sql
    - Update: usp_IBSR_v04.08.00.00.sql

- **IE7_IE8 Users**
    - Insbridge RateManager Setup Document PDF
    - RateManager_IE7_IE8.exe

- **Oracle BI Publisher**
    - OBI_PUBLISHER.exe

- **Oracle Client**
    - Oracle_client.exe

- **Oracle Insurance: Insbridge Enterprise Rating.exe**

No license file is required.

The 04.09.00-Insbridge-jboss folder contents:

- IBSS.EAR
- Insbridge.net.softraterconfig.xml

The 04.09.00-Insbridge-was folder contents:

- IBSS.EAR
- Insbridge.net.softraterconfig.xml

The 04.09.00-Insbridge-wbl folder contents:

- IBSS.EAR
- Insbridge.net.softraterconfig.xml

No license file is required.

SoftRater can be installed any time after the Insbridge Framework Administrator and RateManager have been installed. SoftRater must be installed prior to any users creating packages. Please note, all folders and files may not be needed, depending upon the kind of setup you want.

Internet Explorer

IBSS and IBFA are accessed via web browser. Please verify that you are using Internet Explorer 8.0 or 9.0 (32-bit). As of release 04.09.xx, Internet Explorer 8.0 and 9.0 (64-bit) are not supported.

Chapter 2

SYSTEM REQUIREMENTS

The Insbridge Framework Application container for the SoftRater J2EE EJB contains the JDBC connection drivers that support operational connectivity to the DBMS system listed before. It also contains vendor specific DDLs for the SoftRater operations database schema creation which can be altered by DBA's for setup compliance for varying corporate environments, i.e. TABLESPACE and SCHEMA target definitions.

To obtain Database Definition Language (DDL) scripts for a target DBMS type view the "SoftRater\DDL" subdirectory in the Insbridge IBFA installation directory.

i.e. C:\Program Files\Oracle\Insbridge\SoftRater\DDL

Please allow the DBA to review the scripts before attempting to create a SoftRater database schema.

The SoftRater EJB data access system contains all the required JDBC drivers for connectivity to the support DBMS's. TCP/IP connection visibility to the DB Platform is required along with the database server system configured connection PORT for operational use of the SoftRater system. No other supplemental drivers or libraries are needed to establish a connection.

IMPORTANT: *It is strongly recommended that any database modification be performed by a qualified database administrator (DBA). The database setup procedures and tasks require the skill set of a database administrator. If you are not a database administrator, please stop. Improper setup may result in unwelcome changes to the database. Please consult with a qualified database administrator before proceeding.*

Application Server Permissions

WebLogic, WebSphere, and JBoss require read/write permissions on the server and the application to create Insbridge specific folders, edit configuration files, and write log files.

DATABASE USER ROLES AND PERMISSIONS

If a more granular approach is required for management of security of the Insbridge databases, then the following guidelines can be used to set permissions.

NOTE: *These are only guidelines. If not properly configured, certain processes within the Insbridge Enterprise Rating System will fail. An experienced database administrator's expertise is highly recommended before making any security changes.*

Recommended SoftRater Permissions:

The recommended permissions are required for new tables to be created in the SoftRater (IBSR) database dynamically when or if a new line of business SRP (SoftRater Package) is loaded to the SoftRater system. If the recommended permissions are not possible, manual steps will need to be performed that will allow for packages to be loaded.

SoftRater can utilize three database types, SQL Server, DB2 and Oracle.

- **Insbridge SoftRater SQL Server Database**.

  It is recommended that the Insbridge login be granted permission to connect to the database engine and be enabled. It is also recommended that the Insbridge login be mapped to the Insbridge database with the db_owner role checked.

- **Insbridge SoftRater Oracle Database**.

  It is recommended that the Insbridge user be granted, as defaults, the “CONNECT” and “RESOURCE” Roles.

- **Insbridge SoftRater DB2 Database**.

  It is recommended that the Insbridge user be granted, as defaults, the “Connect to database”, “Create Tables”, and “Create packages” authorities.

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.

It is recommended that db_owner permissions be given to the Insbridge user. This will allow scripts to be run automatically when a new package is loaded for a new line of business. If this is not possible, DT scripts for each new line will have to be run manually before the package can be loaded.

Microsoft SQL Server

JDBC Driver Class

“com.microsoft.jdbc.sqlserver.SQLServerDriver”

Supported Versions – 2008 R2 and 2012

User Account Requirements

Create Table
Create Index
Execute on the SoftRater User Defined Stored Procedures

Oracle

SoftRater database schema is support by all available ORACLE database platforms.

JDBC Driver Class

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

Supported Versions – 10g, 11g, 12c

User Account Requirements

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

IBM DB2

SoftRater database schema is supported on version 9.7.

JDBC Driver Class

"com.ibm.db2.jcc.DB2Driver"
For Native AS400 – "com.ibm.as400.access.AS400JDBCDriver"

Supported Version – 9.7

User Account Requirements

Connect to database
Create Table
Create Packages
Query access to "SYSIBM.SYSTABLES"

Configuration Settings

- **Required**
  The query dynamics of the SoftRater system requires some modification to Configuration settings. The following Performance Configurations parameters required to the target SoftRater database.
  Instance Level – ASLHEAPSZ >= 1024
  Instance Level – QUERY_HEAP_SZ => 10240
  Database Level – APPLHEAPSZ >= 1024

- **Recommended**
  The query dynamics of the SoftRater system will benefit from the following modification to Configuration settings.

  Instance Level – INTRA_PARRALLEL (Yes) – For Symmetrical Processing Machines (CPU >=2)

  Database Level – DFT_DEGREE (-1) – For Symmetrical Processing Machines (CPU >=2). Allow the optimizer to determine the degree of intra-partition parallelism based on the number of processors and the type of query.

SOFTRATER FOR JBOSS INSTALLATION

Installing SoftRater for JBoss requires that you:

1. Set up JBoss and deploy the SoftRater for JBoss .EAR file and config file.
2. Implement the database and enter the configuration information in IBSS and IBFA. There are three database options:
    a. Oracle Database
    b. SQL Server Database
    c. IBM DB2

SoftRater for JBoss can utilize either database. The installation procedures are similar, but there are different procedures for each database type. Please follow the installation for your database type.

Setting up and Deploying in JBoss

Step 1: Placing Configuration File
Step 2: Adding System Properties
Step 3: Deployment of IBSS.EAR File
Step 4: Start JBoss Server
Step 5: Test the application

Implementing a SQL Server Database

Step 1: Restoring Insbridge Databases in SQL Serve
Step 2: Setting up a JBoss Environment in IBSS
Step 3: Entering your IBSS Instance in IBFA

Implementing an Oracle Database

Step 1: Creating an Oracle Database
Step 2: Setting up a JBoss Environment in IBSS
Step 3: Installation of Oracle Client
Step 4: Entering your IBSS Instance in IBFA

Implementing an IBM DB2 Database

Step 1: Creating a DB2 Database
Step 2: Adding the DB2.jar File
Step 3: Setting up a JBoss Environment in IBSS
Step 4: Installation of DB2 Client
Step 5: Entering your IBSS Instance in IBFA

Chapter 3

SETTING UP JBOSS

JBoss should be up and running prior to deploying the .EAR file. There are seven steps that should be performed in JBoss prior to deploying the .EAR file. **All steps are required.**

- **Step 1:** Placing Configuration File
- **Step 2:** Adding System Properties
- **Step 3:** Deployment of IBSS.EAR File
- **Step 4:** Start JBoss Server
- **Step 5:** Test the application

STEP 1: PLACING THE CONFIGURATION FILES

This is a required step.

In this step, two folders must be created and the application file and configuration file must be placed in one of the folders. The configuration file must be in place prior to the SoftRater installation.

Creating Necessary Folders

We suggest creating an Insbridge config folder but you may use any folder name you want and you can place the folder any where you want. This folder holds the necessary files for the SoftRater for JBoss installation. Take note of the location and make sure you have created this folder prior to running the installation. This location serves as the application directory.

- For a Windows environment, C:\Insbridge\config
- For a Linux environment, `home/Insbridge/config`

NOTE: *For the purposes of this guide, the location will be referred to as C:\Insbridge\config.*

An instance folder must be placed under the configuration folder. We suggest creating an Insbridge config instance folder but you may use any folder name you want. The folder must be under the config folder. Take note of the location and make sure you have created this folder prior to running the installation. This location serves as the instance application directory.

- For a Windows environment, C:\Insbridge\config\instance
- For a Linux environment, `home/Insbridge/config/instance`

NOTE: *For the purposes of this guide, the location will be referred to as C:\Insbridge\config\instance.*

Placing the Configuration Files

The SoftRater for JBoss zip file should be downloaded to the JBoss server prior to configuration. Unzip the file. There will be an XML file and an .EAR file inside.

- **IBSS.ear**
- **Insbridge.net.softraterconfig.xml**

Place these files in the C:\Insbridge\config folder.

The instance folder will not have any files placed in it.

NOTE: *It is important that the configuration path specified in the section Step 3: Adding a System Property to JBoss Server of this document contain both the application and configuration files. These files need to be placed where you specify in the standalone file.*

Once you have these files in place, do not move them.

STEP 2: ADDING SYSTEM PROPERTIES

This is a required step. The system properties must be configured prior to SoftRater being installed.

The Insbridge application requires a shared variable on the JBoss Server that points to the location of the configuration files and to the location of the instance files.

In JBoss, it is not possible to define variables as part of the Server JNDI. For this reason, you must create a Java System property in the server initialization that can be used by the application to retrieve the path that accesses the system configuration files.

NOTE: *If the server domain was running during these modifications, you will need to restart the server before proceeding.*

Adding to the JBoss Server – Windows

1. If the server is running, it must be stopped. Changes to a server that is running will not be dynamically loaded.
2. In a Windows Explorer window, enter the server bin location. For example: C:\Program Files\JBoss\jboss-eap-6.2\bin.
3. In the "**bin**" folder locate the "**standalone.bat**" file. Make a backup copy for safety. If the file you are editing gets corrupted, you can restore the original file.
4. Open the "**standalone.bat**" file and right click to **Edit**. Scroll towards the end of the file.

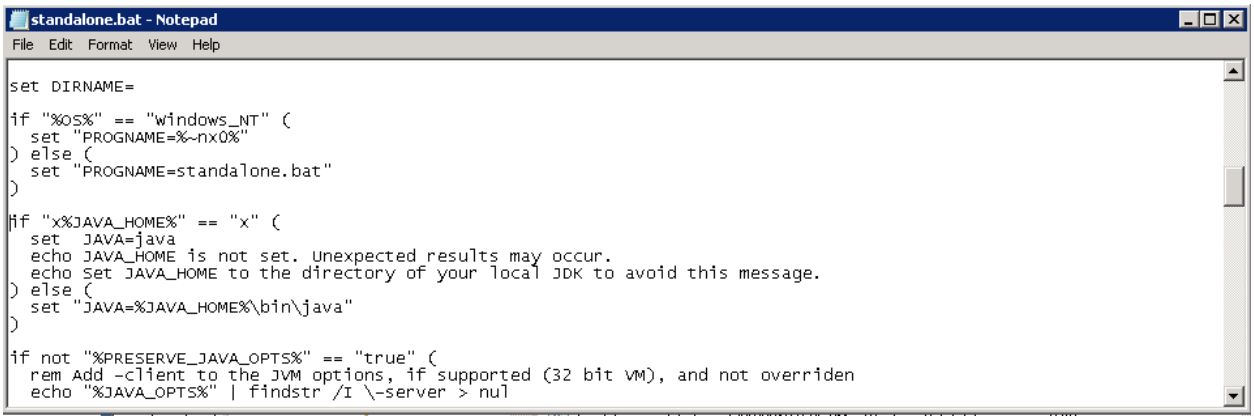


Figure 1 – Editing standalone.bat File

5. Locate the **DOS if instruction** that looks similar to the one in Figure 1. Your exact file may have slight variations.

6. You will need to insert the following system property declarations:

   - `-DINSBRIDGE_APP_DIR="C:\Insbridge\Config". If you copy, please verify valid characters have been entered.`

     In this declaration, add a system property for the application directory location to the Java Virtual Machine using the "**-D**" parameter, then specify "**INSBRIDGE_APP_DIR**" as the name of the new variable.

     You must also specify the path where the configuration file will be located. i.e. "**C:\Insbridge\Config**". Where **C:\Insbridge\config** is the folder you created earlier.

   - `-DINSBRIDGE_INSTANCE_APP_DIR="C:\Insbridge\Config\Instance". If you copy, please verify valid characters have been entered.`

     In this declaration, add a system property for the instance application directory to the Java Virtual Machine using the "**-D**" parameter, then specify "**INSBRIDGE_INSTANCE_APP_DIR**" as the name of the new variable.

     You must also specify the path where the configuration file will be located. i.e. "**C:\Insbridge\Config\Instance**". Where **C:\Insbridge\config\Instance** is the folder you created earlier.

NOTE: *If JBoss does not enter running mode, please check the start dialogue. If your system property is not recognized, please verify that valid characters have been entered.*

For Example:

```
rem Setup JBoss specific properties
set JAVA_OPTS=-Dprogram.name=%PROGNAME% %JAVA_OPTS% -
DINSBRIDGE_APP_DIR="C:\Insbridge\config" -
DINSBRIDGE_INSTANCE_APP_DIR="C:\Insbridge\config\Instance"
```

7. **Save** your changes.

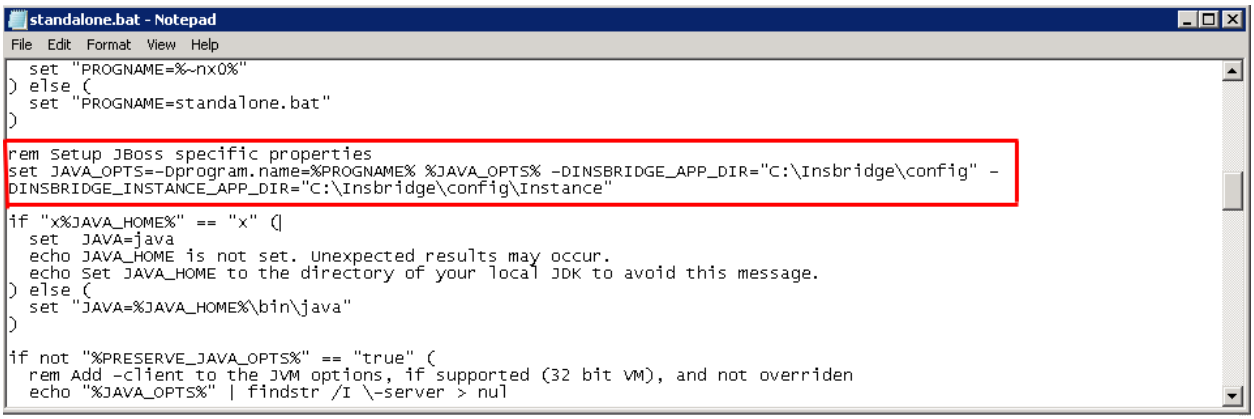


Figure 2 – Edited standalone.bat File

8. The variable will be added to the Server the next time it is started.

Adding to the JBoss Server – Linux

The procedure is similar in Linux. Open the file and right click to **Edit**. Scroll towards the end of the file and insert the system properties using the folder locations defined earlier.

1. If the server is running, it must be stopped. Changes to a server that is running will not be dynamically loaded.

2. Locate the "**standalone.sh**" file. In many instances, the file will be located in: `../home/user/JBoss/jboss-as-7.1.1.Final/bin`.

3. In the "**bin**" folder locate the "**standalone.sh**" file. Make a backup copy for safety. If the file you are editing gets corrupted, you can restore the original file.

4. Open the "**standalone.sh**" file and right click to **Edit**. Scroll towards the end of the file.

5. Locate the **command** set JAVA_OPTS=%JAVA_OPTS%

6. Insert the following system property declarations:

   - `-DINSBRIDGE_APP_DIR="home/Insbridge/config". If you copy, please verify valid characters have been entered.`

     In this declaration, add a system property for the application directory location to the Java Virtual Machine using the "**-D**" parameter, then specify "**INSBRIDGE_APP_DIR**" as the name of the new variable.

     You must also specify the path where the configuration file will be located. i.e. "**home/Insbridge/config**"". Where **home/Insbridge/config** is the folder you created earlier.

   - `-DINSBRIDGE_INSTANCE_APP_DIR="home/Insbridge/config/instance". If you copy, please verify valid characters have been entered.`

In this declaration, add a system property for the instance application directory to the Java Virtual Machine using the "**-D**" parameter, then specify "**INSBRIDGE_INSTANCE_APP_DIR**" as the name of the new variable.

You must also specify the path where the configuration file will be located. i.e. "**home/Insbridge/config/instance**". Where **home/Insbridge/config/instance** is the folder you created earlier.

NOTE: *If JBoss does not enter running mode, please check the start dialogue. If your system property is not recognized, please verify that valid characters have been entered.*

For Example:

7. **Save** your changes.

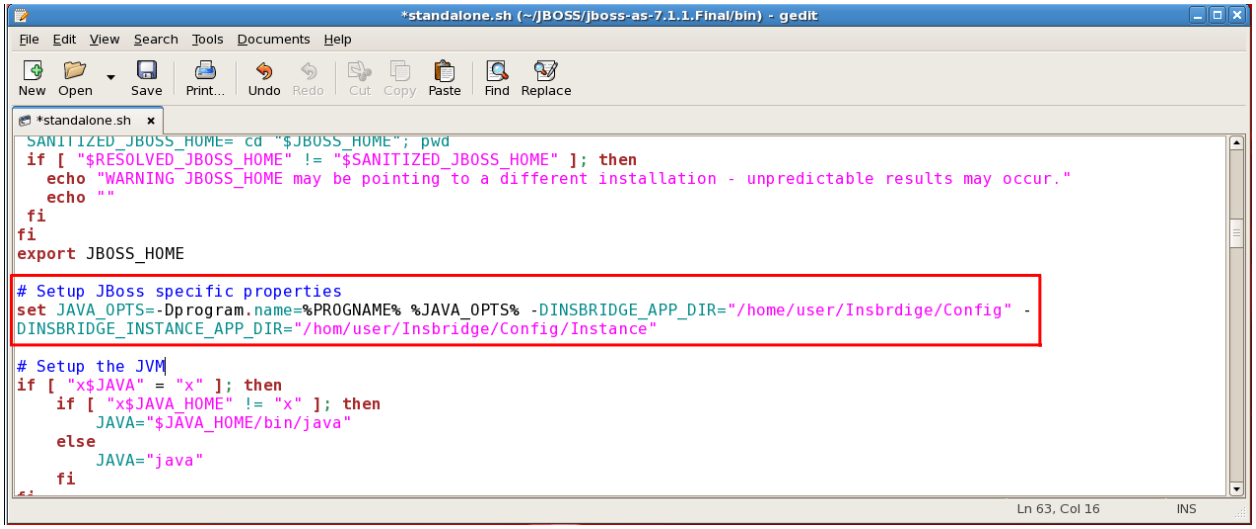


Figure 3 Edited standalone.sh file

8. The variable will be added to the Server the next time it is started.

STEP 3: DEPLOYMENT OF THE IBSS.EAR

There are two ways to deploy the IBSS.ear file; a hard deployment or using the console. A hard deployment must be done prior to starting the server. A hard deployment takes advantage of the deployment location within JBoss. If you do not use the deployment location, you can use the console to deploy the file.

Hard Deployment on Windows

A hard deployment of the IBSS.ear file on JBoss is a one step procedure; copy the provided file (IBSS.ear) to the following location: …/standalone/deployments.

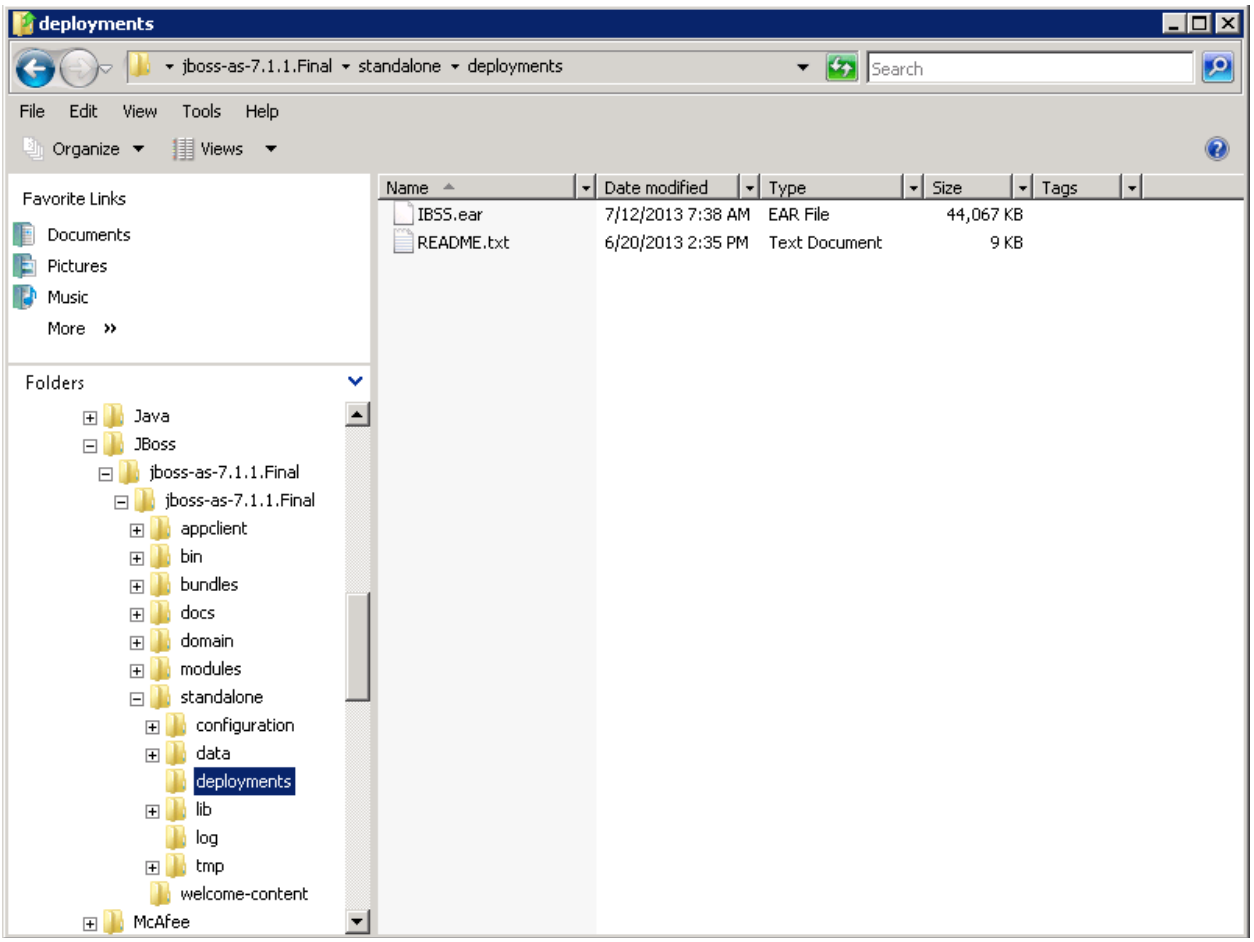


Figure 4 SoftRater for JBoss Deploy Folder Windows

The deployment will start automatically when the server is started.

Updating the System IP Address in Windows

This is an optional step. To access the JBOSS server console using a System IP address or with the local host URL (http://localhost:8080), change the IP address value of <*interfaces*> node of standalone.xml from **127.0.0.1** to **0.0.0.0.**

NOTE: *If the IP address value is 127.0.0.1 then it will restrict to access the console URL with localhost only. These changes need to be done for windows machine only.*

1. Locate the folder location of the standalone.xml file: "<*jboss_home*>*standalone**configuration*".
2. Create a backup copy and park in a safe location.
3. Open the standalone.xml file:
4. Change the management, public and unsecure addresses to 0.0.0.0.

```
<interfaces>
   <interface name="management">
      <inet-address value="${jboss.bind.address.management:0.0.0.0}"/>
   </interface>
   <interface name="public">
      <inet-address value="${jboss.bind.address:0.0.0.0}"/>
   </interface>
   <interface name="unsecure">
      <inet-address value="${jboss.bind.address.unsecure:0.0.0.0}"/>
   </interface>
</interfaces>
```

5. Save and close the file.

Hard Deployment on Linux

A hard deployment in Linux follows the same procedure. Copy the provided file (IBSS.ear) to the following location: …/standalone/deployments.

Figure 5 SoftRater for JBoss Deploy Folder Linux

The deployment will start automatically when the server is started.

Deploying IBSS.EAR Using the JBoss Console

If you did not deploy the IBSS.EAR file using a hard deployment, you can deploy using the JBoss Admin console. You may need to deploy using the console if the .EAR file is not in the deployment location in JBoss. The steps are same for both Windows and Linux machines.

1. Log in to the JBoss server console URL i.e. http://10.100.100.10:9990/console.

2. Select the **Runtime** tab from the upper right corner.

3. Select **Manage Deployments** from the left panel menu.

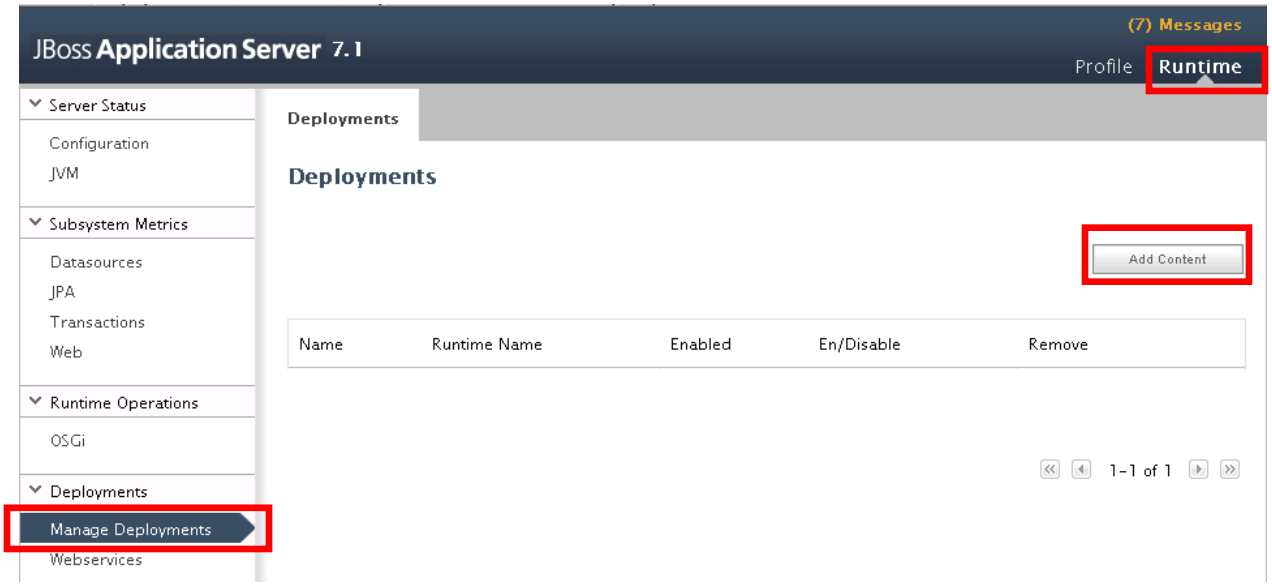


Figure 6 Managing Deployment on the JBoss Console

4. The deployments window will open.

5. Click **Add Content** to add/upload the IBSS.EAR file.

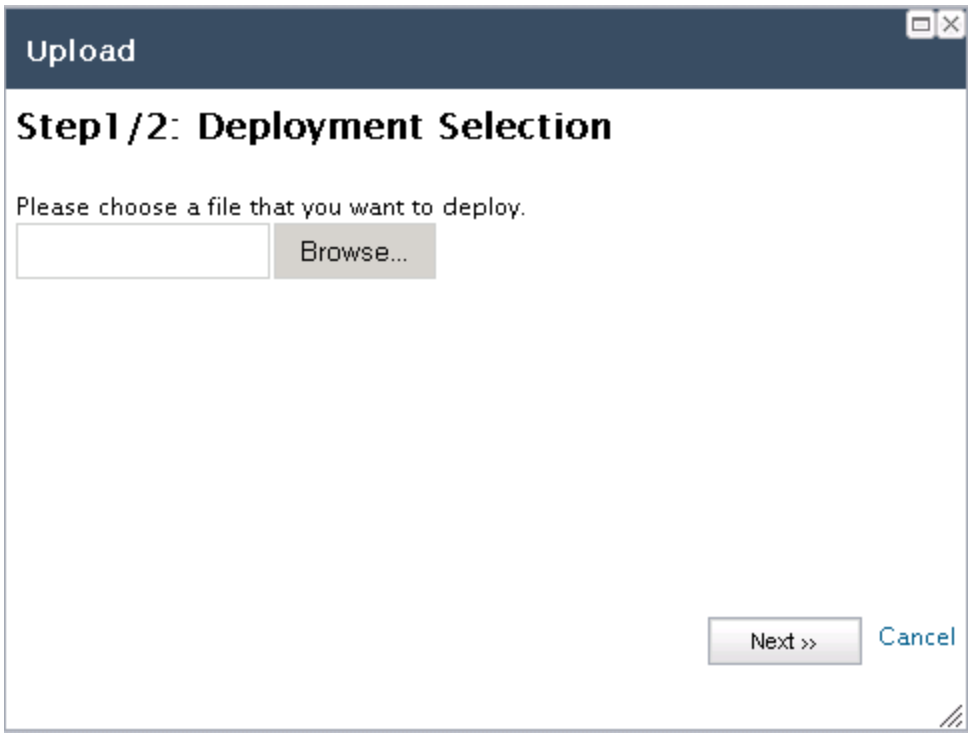


Figure 7 Deployment Selection

6. Choose the IBSS.EAR file location and click Next.

Figure 8 Verifying Deployments

7. Verify your entries and click Save.

8. Click on the **Enable/Disable** icon to enable the IBSS.EAR.

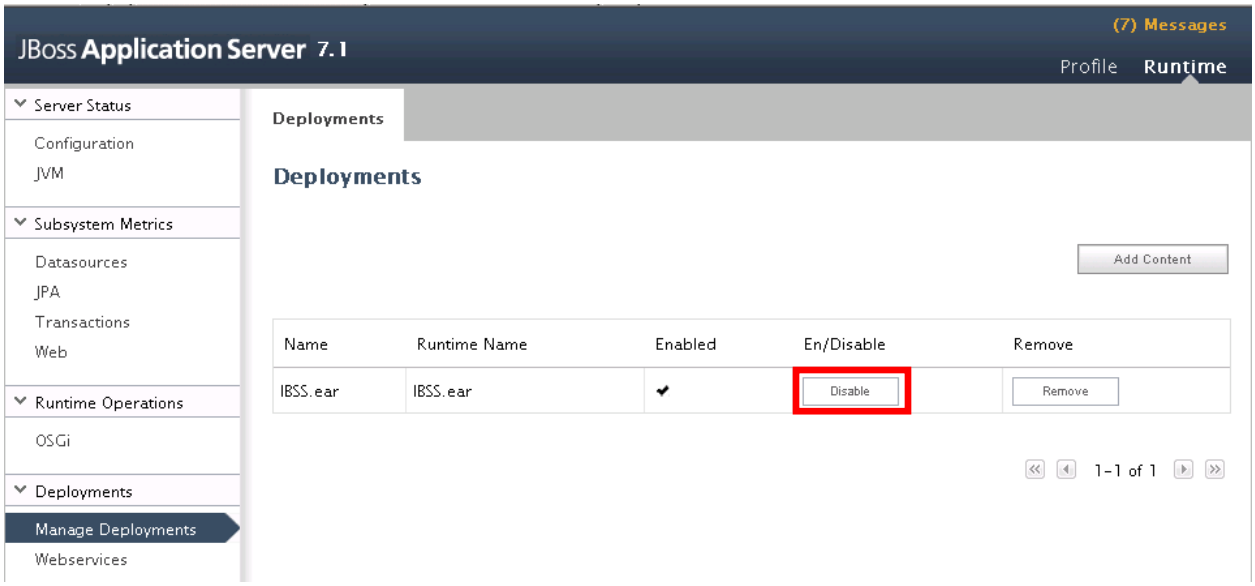


Figure 9 Enabling the Deployment

- **Disable mode**: To deny access to the .EAR file. This is the default mode.
- **Enable mode**: To allow access to the .EAR file.

9. The .EAR is deployed to the JBoss server and available to users.

STEP 4: START JBOSS SERVER

Start the JBoss server. You can run from command prompt or terminal. For example:

- In Windows: Go to "*<jboss_home>\bin*" location and run the **standalone.bat** file. For example: C:\Program Files\JBoss\jboss-as-7.1.1.Final\bin\standalone.bat. Double click the standalone.bat file to start the server.

  Or

- In Linux: Go to the bin directory of "*<jboss_home>"* location and run the **standalone.sh** file. For example: /Users/Administrators/JBoss/jboss-as-7.1.1.Final/bat/standalone.sh. Select ***"./standalone.sh &"*** and press enter.

STEP 5: TEST CONNECTION

Test the application on URL: http://<ServerName>:8080/IBSS.

Where: ServerName is the name of the server where JBoss resides.

The port can be changed, please verify the port number if the application fails to launch.

If you are using a Windows instance of JBoss, remote access must be enabled.

NOTE: *Port 8080 is the most commonly used port. The port number may have been changed when the instance was created.*

Stopping and Starting JBoss

If the application fails to launch and the port and server name are correct, you may need to stop and start JBoss.

Chapter 4

INSTALLATION PROCEDURES – UTILIZING A SQL SERVER DATABASE

The following is a check list of the installation steps needed to perform a NEW SoftRater for JBoss Installation:

1. Creation of the IBSR databases is next.
2. Create a JBoss entry in IBSS.
3. Create a JBoss entry in IBFA

STEP 1: RESTORING INSBRIDGE DATABASES IN SQL SERVER

Because many corporate environments have a separation between the system administrator and the database administrator, the following process may require both administrators' access and permissions. Make sure you have a SQL Server account called **ibru**.

NOTE: *If you do not have database permissions, you will not be able to perform the following database procedures.*

NOTE: *If you are unsure how to perform a database restore, please consult with your database administrator.*

Currently supported is the default SQL Server collation using SQL_Latin1_General_CP1_CI_AS and sort order plus case sensitivity using Latin1_General_BIN as the server collation. The security database (IB_CLIENT) supports the default SQL Server collation using SQL_Latin1_General_CP1_CI_AS. The RateManager and SoftRater databases can use either case sensitive or non-case sensitive. Please check with Oracle Insurance for any questions regarding database server sort orders or collations.

1. Located in the Insbridge Installation Directory:

    - SoftRater – IBSR
        - Latin1_General_BIN
            - DATABASE_BACKUP_IBSR_TEMPLATE_CASE_SENSITIVE.bak
        - SQL_Latin1_General_CP1_CI_AS
            - DATABASE_BACKUP_IBSR_TEMPLATE.bak
        - Update:Usp_IBSR_v04.05.01.sql
        - Update: usp_IBSR_v04.06.00.01.sql
        - Update: usp_IBSR_v04.08.00.00.sql

2. Select the SoftRater backup file you want to use, case sensitive or non-case sensitive.

3. **Copy the file** to an appropriate database folder on the machine where SQL Server is installed. For example, [Drive]:\Program Files\Insbridge\Databases. If you are unsure of a location, please

consult with your database administrator.

4. **Rename the file**. It is not required but it is strongly suggested that the database file name be changed from TEMPLATE to something that defines the databases more accurately. At a minimum, it is recommended that you remove "_TEMPLATE" from the name. You can change the name after it has been restored also.

5. **Open the SQL Server Management Studio** either on the server or remotely using either an administrative account with sa privileges or as the sa account.

NOTE: *If you do not have SQL Server Management Studio, check to see that the SQL Server Client has been installed. For a SQL Server install, you must have the SQL Server Client installed.*

6. Go to **Databases**.

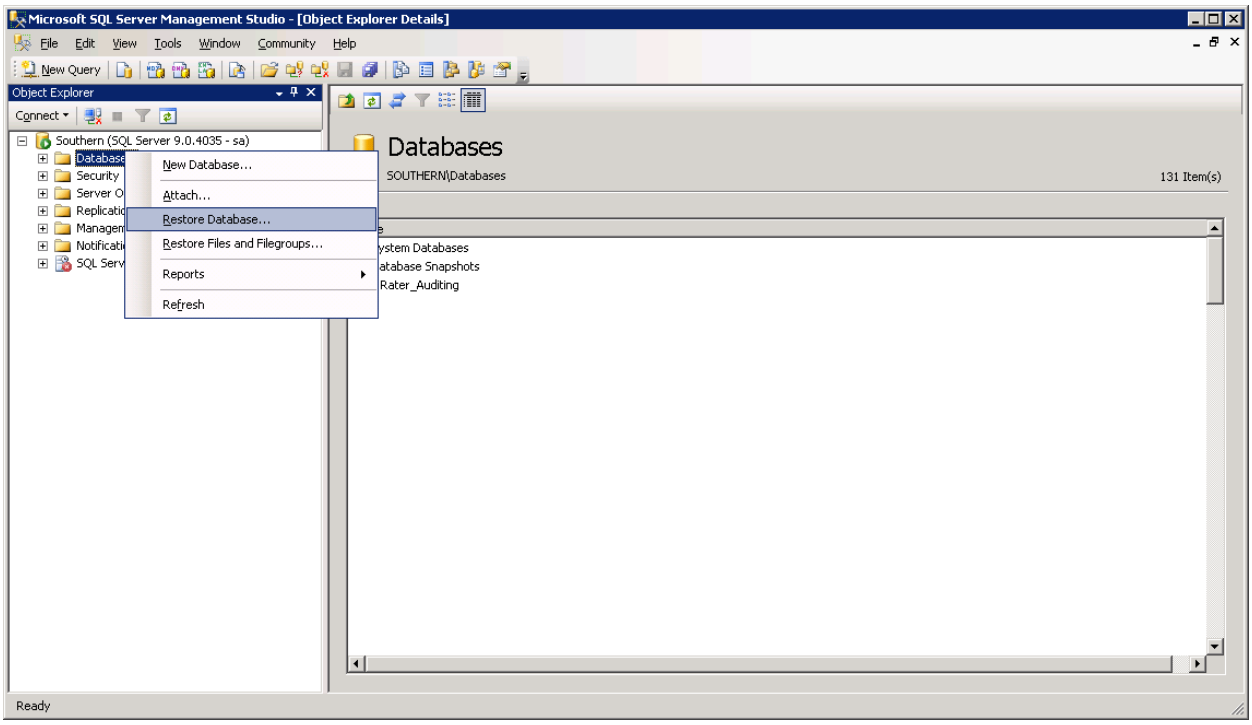


Figure 10 Right Click to Restore Database

7. Right click on **Databases**.

8. Select **Restore Database…** A separate screen will be displayed.

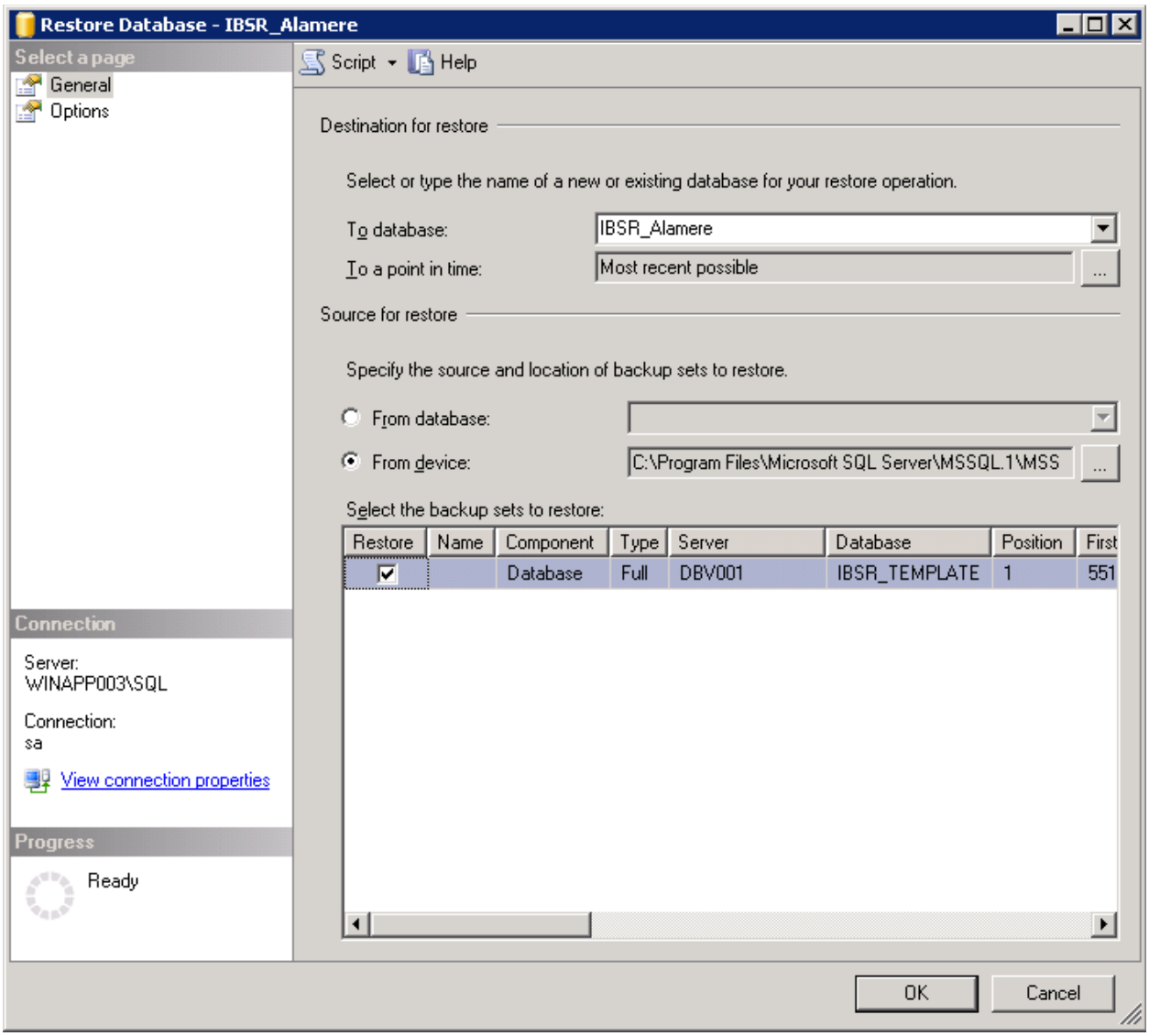


Figure 11 Restoring a Database

9. Enter your IBSR database name in **To Database:**.

10. Select **From Device**. Click **…** to browse to the location where the database files were placed in step 3.

11. Select your database **IBSR_ *xxxx*.BAK**, where ***xxxx*** equals the renamed file from step 4.

12. Click **OK**. Your database will be populated.

13. Verify your information. Check the **Restore** box.

14. Click **OK**.

15. If the database was restored successfully, it will be displayed in the database folder. If not, please correct any errors and try again.

16. Once the databases are restored to SQL Server, you will need to create or assign a SQL Server user account for the application. This user will be used for the connection to the databases when setting up the connections from the Insbridge Framework Administrator. Make note of the account you want to use. This information will be entered into the Insbridge Framework Administrator.

STEP 2: SETTING UP A JBOSS ENVIRONMENT IN IBSS

There are three steps that will need to be done in IBSS:

- **Step 1: Creating a New Subscriber**
- **Step 2: Creating a SoftRater Environment**
- **Step 3: Adding a Node**

Open an Internet Explorer web browser and browse to the following location, replacing ServerName with the actual server name where JBoss resides:

http://<ServerName or IP Address>:8080/IBSS

Security Enabled

Security is enabled by default; users are presented with a login screen. A user name and password must be entered to gain access. Information regarding the status of the system is presented but will not be accessible. The default is for security to be enabled.

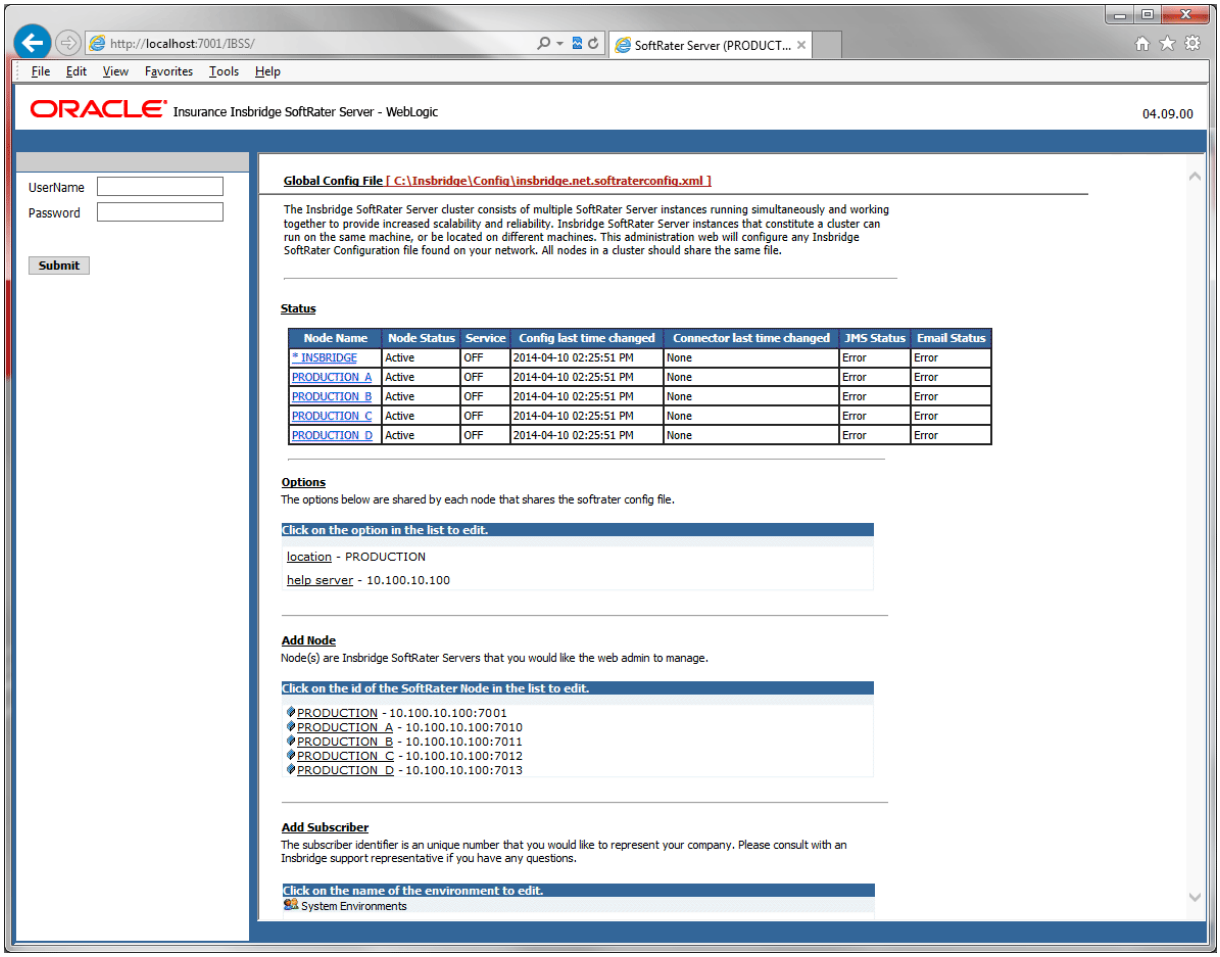


Figure 12 Security Enabled in IBSS

When Security is enabled, a default user “admin” with a default password of “insbridge” is assigned. This is the user name and password to be used the first time you enter IBSS. It is strongly recommended that the password be updated at the first log in.

IBSS Home

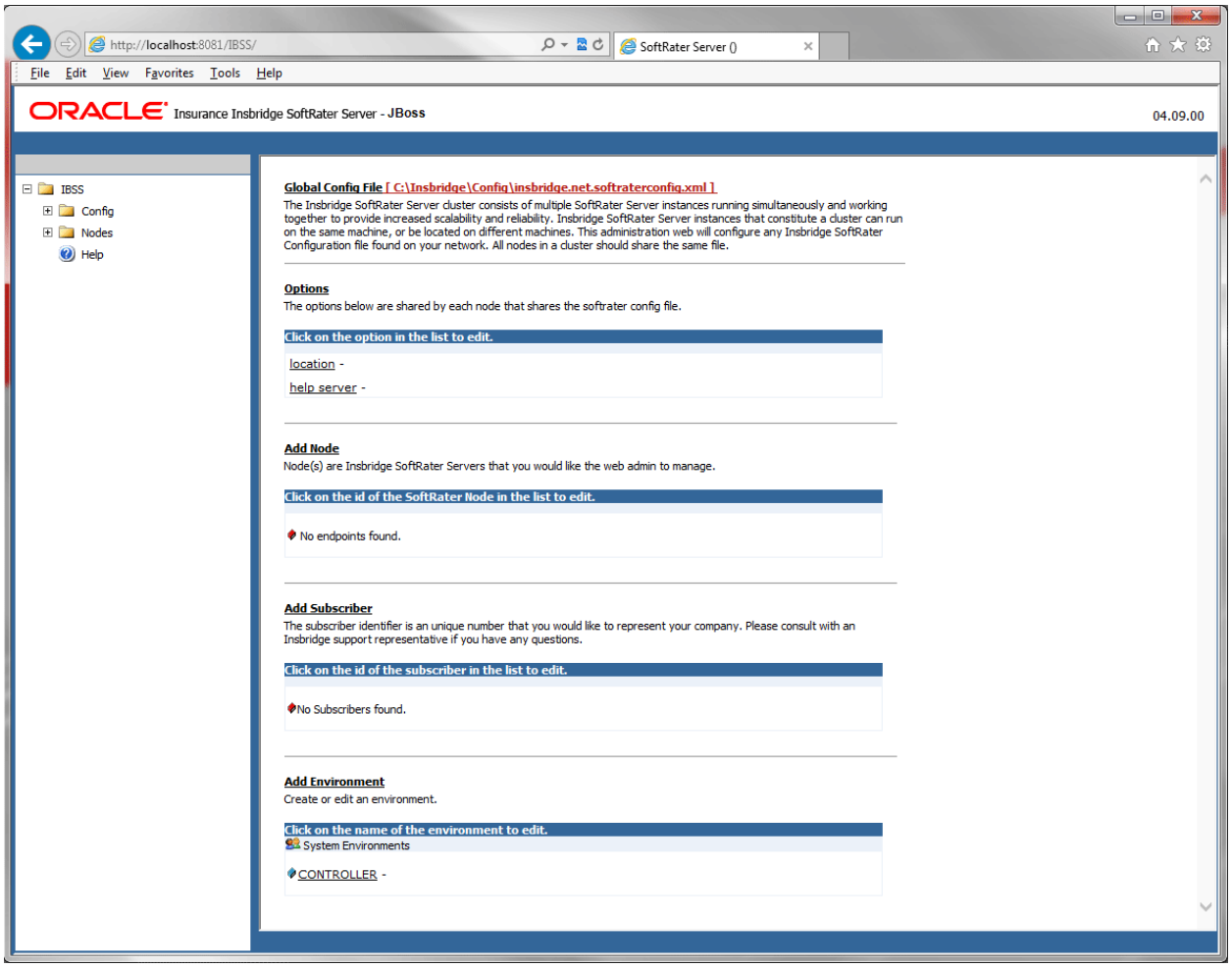


Figure 13 IBSS JBoss Main Page

NOTE: *The IBSS parameter in the application URL must be capitalized.*

Step 1: Creating a Subscriber:

A *subscriber* is a group or collective of users and environments under a single identity. This identity is used to manage and configure the group's activities and databases. A subscriber may be a single company, a group within a company, or a single person.

The ID and Name must match across all environments. If you have created a subscriber in IBFA, use the same ID and Name here. If you have not created a subscriber, you can create them here and then use the same information in other environments. The ID and Name are fixed after the first time you save. These entries cannot be edited.

1. Click on **Add Subscriber**. A separate screen is displayed.

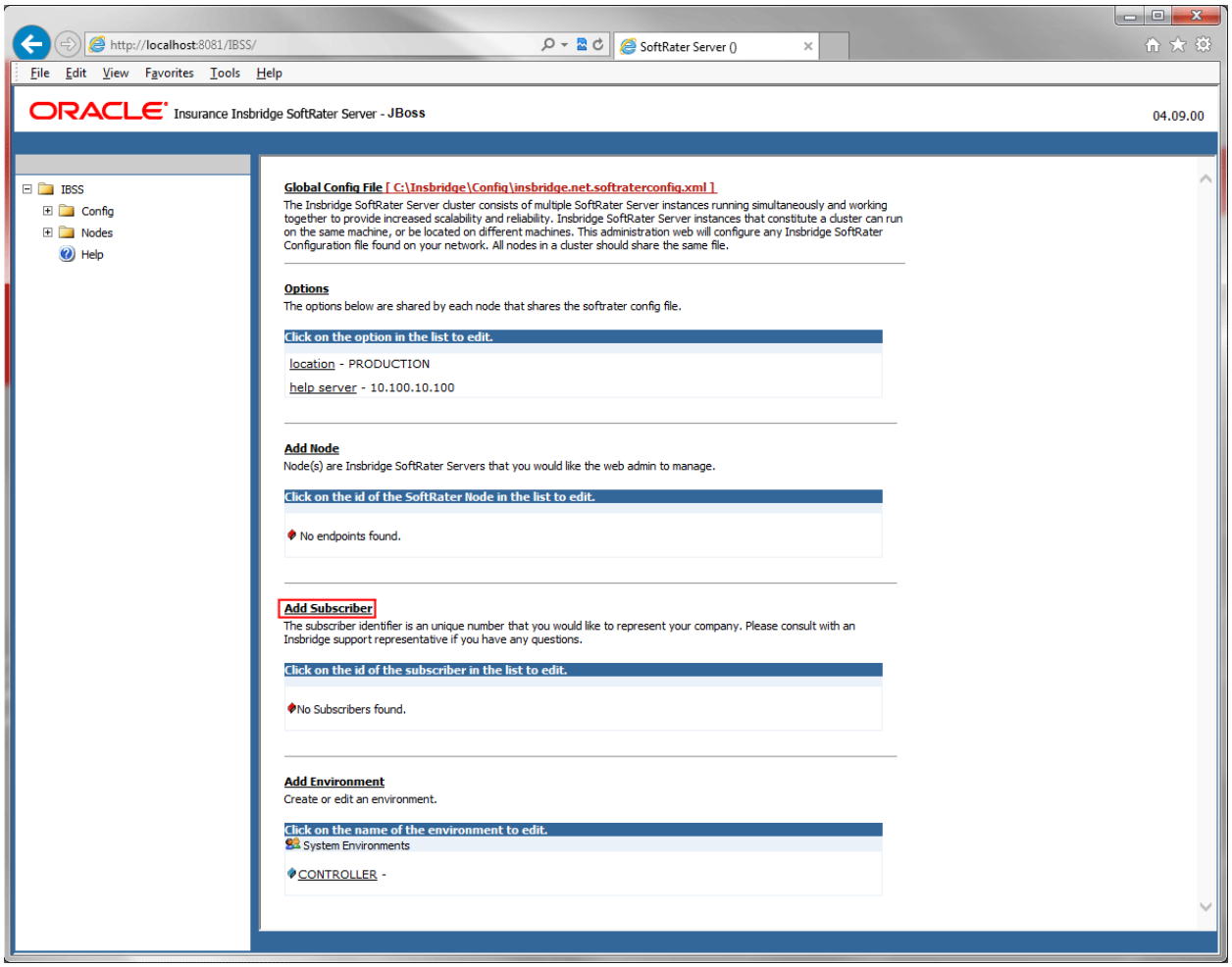


Figure 14 Adding a Subscriber

2. Enter the **ID**, and **Name** for your subscriber.

   The Subscriber ID can be a 1-5 digit number and must unique for each subscriber. For example, if you have an instance of IBFA on machine A, you can create a subscriber with an ID of 100. On machine A, if you create another subscriber, you must give that subscriber a different ID number, say 200. If you also have an instance of IBFA on a different machine, B for example, you should duplicate the same subscribers with the same ID numbers on machine B.

If you require assistance or are unsure of what action to take, please log a Service Request using My Oracle Support at https://support.oracle.com/.

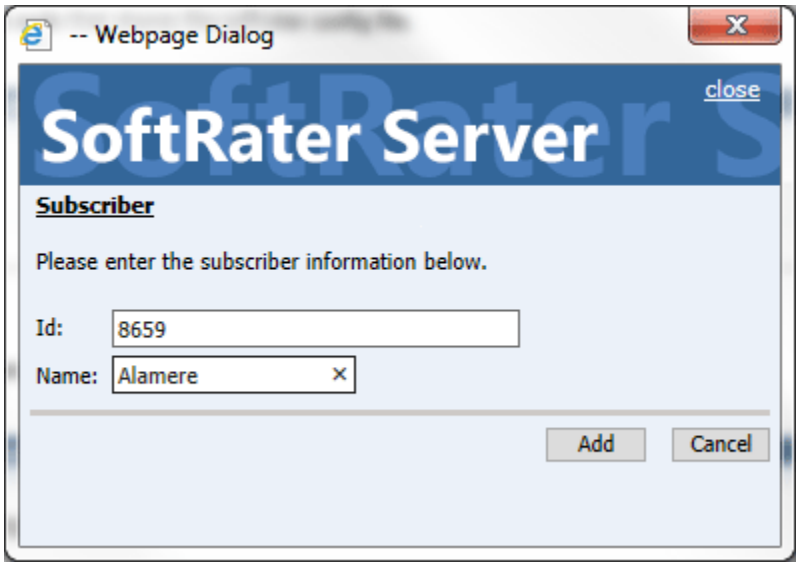


Figure 15 Enter ID

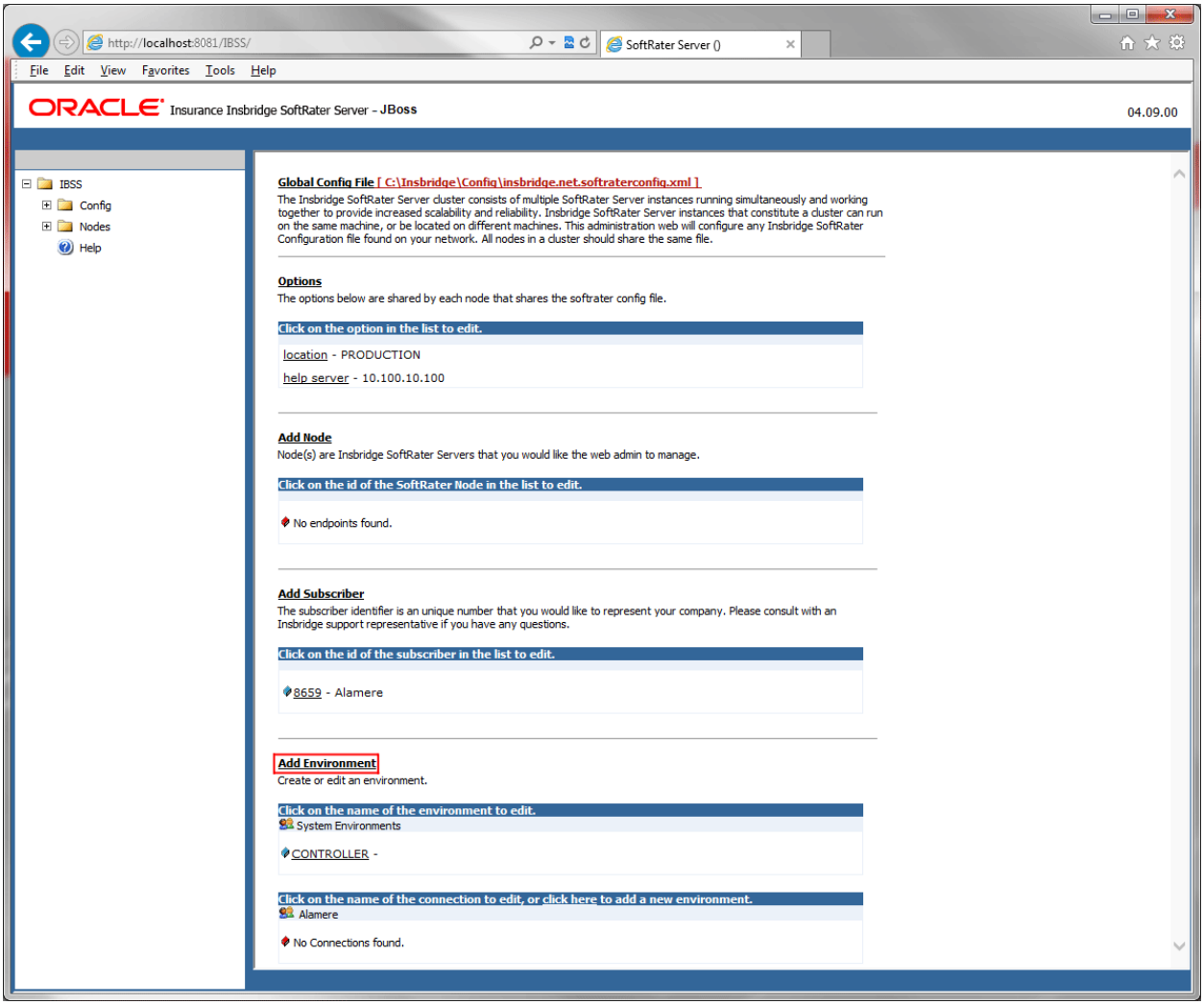
3. When you finish entering the information, click **Save**. The new subscriber will now be displayed in the list of subscribers.

NOTE: *Make note of the subscriber ID number. You may need to enter this on another IBFA or IBSS environment.*

Step 2: Creating a SoftRater Environment:

The **Environment Setup** section allows you to configure rating environments. An environment is a pointer to a location where SoftRater Packages (SRP's) are stored and loaded. There is no limit to the number of environments you may have.

1. Select **Add Environment** from the IBSS Main page. You will be placed on the environment window.



2. A separate screen is displayed. Enter the following information:

For DSN Entries

Subscriber: Select the name of the subscriber from the menu.

Environment Name: A name for the environment. This is the friendly name.

Environment Type: Select the type of connection:

- **DSN** – The connection information is held by the Insbridge system.
- **JNDI** – The connection is an EJB Lookup and information is not held by the Insbridge system.

Database Server: The name or IP address of the server where packages are loaded.

Database Port: Listening port for the target Database Management System.

Default port numbers:

- SQL Server – 1433
- Oracle – 1521
- DB2 – 50000

Query Block: For certain Database Management Systems (DBMS), system batch query optimization is required for performance and/or because of limits on/in the system. This value will control the maximum number of batch query operations that can be submitted to the target DBMS in any one transaction.

For DB2, enter a query size that is relative to the SQL statement heap size. For example, if your SQL statement heap size is 2048, you may want to enter a query size of 5. The larger the heap size, the larger the query size can be.

You may also need to increase the application heap size.

Query block is not needed for SQL Server or Oracle databases.

Database Name: The name of the database where packages are loaded.

Schema Name: The schema name for the database. Schema Name is not needed for SQL connections.

Database User Id: The username to access the database.

Database Password: The password for the username entered.

Provider Type: The type of the database

- **ORACLE**
- **DB2**
- **DB2(AS400)**
- **MS SQL SERVER**

Database Type: The type of database being accessed:

- **SoftRater – The default. This option should be used for most installations.**
- **RateManager** – Supported for selected installations. Please contact Support.
- **OTHER** – Not used at this time.

Data Dir: The location of the SoftRater Packages (SRP's) on the server.

Default Environment: Select if this is to be used as the default environment. The default environment is used when no environment is specified. There can be only one default environment. The default environment is indicated with a red icon.

3. When you are finished entering information, click **Save**.

Figure 16 Environment Setup

4. Before you can use the new or edited environment for rating, you need to reload the configuration XML file. This is done by resetting the environments. On the left hand side of the IBSS home page, expand Nodes and select the Reset Environments option. You will be placed on the Reset Environment Configuration page. Click **Execute**. The screen refreshes and each node will be reset. Click IBSS to return to the home page.

For JNDI Entries

Subscriber: Select the name of the subscriber from the menu.

Environment Name: A name for the environment. This is the friendly name.

Environment Type: Select the type of connection:

- **DSN** – The connection information is held by the Insbridge system.
- **JNDI** – The connection is an EJB Lookup and information is not held by the Insbridge system.

Name: The name of the data source.

Context Factory: A *URL context factory* is a special object factory that creates contexts for resolving URL strings.

RMI: The Java Remote Method Invocation used.

URL Host: The name or IP of the host server.

URL Port: The port number used by the host server.

Provider Type: The type of the database

- **ORACLE**
- **DB2**
- **DB2(AS400)**
- **MS SQL SERVER**

Database Type: The type of database being accessed:

- **SoftRater – The default. This option should be used for most installations.**
- **RateManager** – Supported for selected installations. Please contact Support.
- **OTHER** – Not used at this time.

Data Dir: The location of the SoftRater Packages (SRP's) on the server.

Default Environment: Select if this is to be used as the default environment. The default environment is used when no environment is specified. There can be only one default environment. The default environment is indicated with a red icon.

5. When you are finished entering information, click **Save**.

Figure 17 Creating a JNDI Environment

Before you can use the new or edited environment for rating, you need to reload the configuration XML file. This is done by resetting the environments. On the left hand side of the IBSS home page, expand Nodes and select the Reset Environments option. You will be placed on the Reset Environment Configuration page. Click **Execute**. The screen refreshes and each node will be reset. Click IBSS to return to the home page.

Step 3: Adding a Node:

Every IBSS instance requires a node. Nodes allow for the management of multiple environments from one location. Nodes contain cache and log information for each environment as well as a reset option.

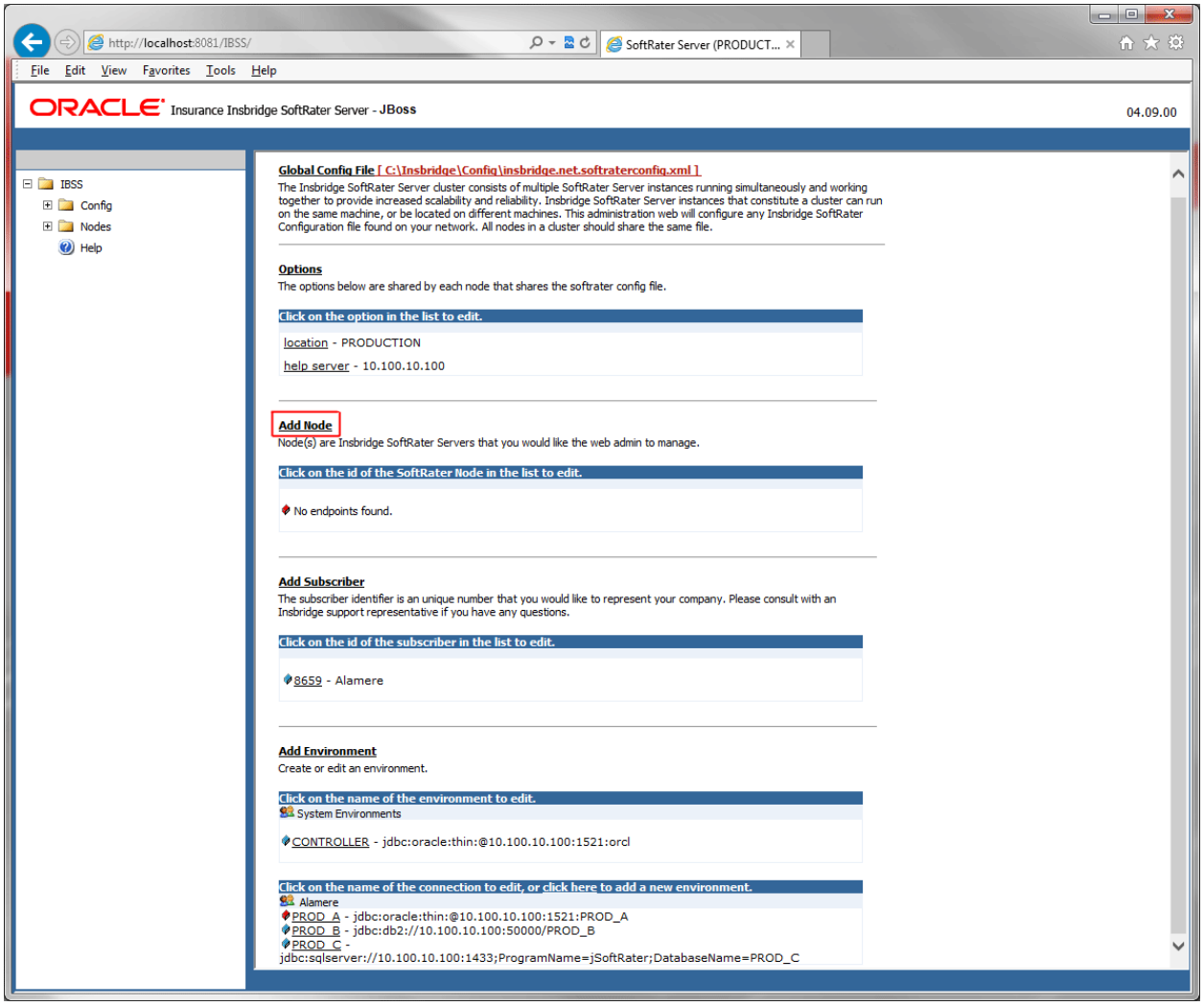


Figure 18 Adding a Controller Database Connection

To create a node, server information is needed:

- **Server OS**
- **Server Name or IP Address**
- **Port Used**

1. From the IBSS home page, click the **Add Node** link.
2. This opens the **Add Subscriber** window.

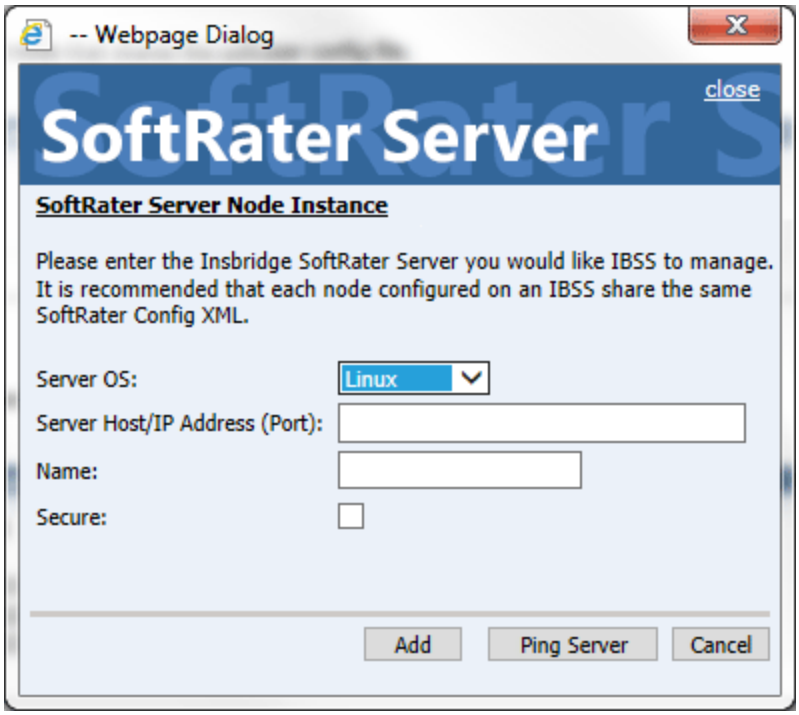


Figure 19 Adding a Node

3. Select the server operating system from the drop down. There are three choices, Linux, Mainframe and Windows.

4. Enter the server host name or IP address and port. The default ports:

   - **WebLogic:** Port 7001
   - **WebSphere:** Port 9080
   - **JBoss:** Port 8080

The format for this is: [SERVER NAME]:[PORT NUMBER]

5. Enter a friendly name. This is the name displayed for the node.

6. Check if this is a secure environment. A secure environment connects using HTTPS.

7. It is recommended that the Ping Server option be used to test the connection. This is an optional step but can be helpful. If a connection cannot be made, the node cannot be saved.

8. Click **Add** to add the node. If a node cannot be added, an error message is displayed. Please correct the error and try again.

NOTE: *It is recommended that server names or IP addresses be used over localhost.*

STEP 3: ENTERING YOUR IBSS INSTANCE IN IBFA

IBFA will need to communicate with the IBSS environment. This will allow for packages to be loaded. There are two parts that will need to be completed:

1. Create an environment.
2. Configure the environment.

A SoftRater environment may be completed at installation or can be added at a later time. A SoftRater environment can be on a Windows machine or a Java machine running an application server, such as JBoss. There is no limit to the number of SoftRater environments that you can have.

1. Enter IBFA.
2. Browse to **SoftRater→Explorer→Subscriber name**.
3. Click on **Add Environment**.
4. Enter a **Name** and select a **Type**. For example, you can create a Quality Control environment with a type of Quality Assurance.
5. Select the **Environments** link under the Configuration header on the left hand side to enter the configuration information for the newly created logical environment. You will be placed on the Environments screen. The environments you previously setup will be listed. If an environment is missing, you must return to the Configuration subtab and add it.

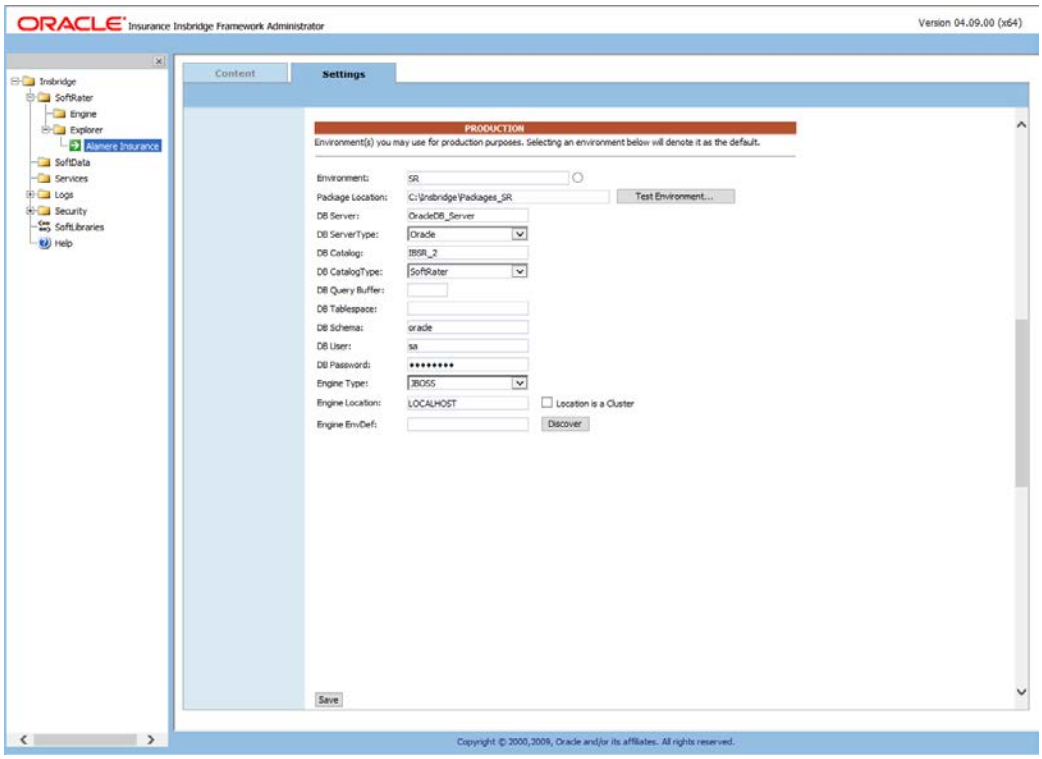


Figure 20 Editing Environment

6. The **Environment Name** will be complete. No changes are needed.

7. Enter in the file path where you want packages stored in the **Package Location**. Use the Test Environment option to have the location created for you.

8. Enter in the **DBServer** name or IP address. This is the database server where the SoftRater database was restored or created.

9. Select the **DB Server Type** that you are using.

10. The **DB Catalog** is the name of the SoftRater database restored in SQL Server. For example, IBSR_QA.

11. The **DB Catalog Type** is **SoftRater**.

12. **DB Query Buffer** is the Query Block entry from IBSS. An entry is required if you are using a DB2 database. For SQL or Oracle, no entry is needed.

13. **DB Tablespace** is not required for a SoftRater environment

14. The **DB Schema** is the name of the schema that defines the structure of the database. This information may be obtained from the DBA.

15. Enter the **DB User** name and **Password**.

16. Select the **Engine Type**.

17. The **Engine Location** is the location of where you installed the SoftRater engine. You can use the machine name or IP address. For WebSphere, WebLogic or JBoss, you must also include the port. For example, a JBoss server may have “WBServerName:8080” as the entry.

18. The **Engine EnvDef** is the machine name if the engine is located on a different server. You can use the machine name or IP address.

19. Click **SAVE** to save your entries.

NOTE: *If the JBoss environment is not responding, you may need to stop and start the JBoss service.*

Chapter 5

INSTALLATION PROCEDURES – UTILIZING AN ORACLE DATABASE

The following is a check list of the installation steps needed to perform a NEW SoftRater for JBoss Installation:

1. Create Oracle database.
2. Create a JBoss entry in IBSS.
3. Run the Oracle Client on the machine where the Insbridge system was installed.
4. Create a JBoss entry in IBFA

STEP 1: CREATING AN ORACLE DATABASE

Because many corporate environments have a separation between the system administrator and the database administrator, the following process may require both administrators' access and permissions.

IMPORTANT: *It is **strongly recommended** that any database modification be performed by a qualified database administrator (DBA). The database setup procedures and tasks require the skill set of a database administrator. If you are not a database administrator, please stop. Improper setup may result in unwelcome changes to the database. Please consult with a qualified database administrator before proceeding.*

Before proceeding, please have ready:

- The LOBs that your company uses. You will need the ID number for each LOB.
- Your subscriber number.
- Location of the Insbridge files.

Oracle Insurance does not have specific requirements, whatever requirements are deemed necessary by your company's internal standards will work. It is recommended that you included the version number or environment name if you are planning on creating more than one instance.

These instructions are high level and require that the setup person be a DBA.

1. On your Oracle database, run all **DDLs**.

NOTE: *If you do not have database permissions, you will not be able to perform the following database procedures.*

a) Create default tablespace for the Soft Rater database.

- If a database table needs to be added, the DDLs are located in the IBFA Installation Directory under the SoftRater/DDL folder. I.e. [INSTALL_DIR]/Insbridge/SoftRater/DDL.
- You will have to replace the TABLESPACE name in the scripts with the tablespace name you used when you created the database.
- On the DT tables, you will need to create one for every LOB. An example of the format is in the comments of the script. It requires the LOB ID number and the customer number.

b) Create user IBSR and assign basic connect and resource grants.

2. On your Oracle database, you will need to run a DT table script for each LOB.

3. After all DT tables have been created, please make note of:

- Schema
- Instance
- User name
- Password

This information will need to be passed along to the Insbridge installer. This information is needed to create a logical environment.

Location of Oracle DDL Directory

If a database table needs to be added in SoftRater, the DDLs are located in the IBFA Installation Directory under the SoftRater/DDL folder. I.e. [INSTALL_DIR]/Insbridge/SoftRater/DDL.

oracle.create.dt.template.sql.txt
oracle.create.packages.sql.txt
oracle.create.packages_lk.sql.txt
oracle.create.packages_rl.sql.txt
oracle.create.packages_si.sql.txt
oracle.create.packages_so.sql.txt

This information may be needed if you are attempting to add an LOB and receive missing table errors. Creating tables in Oracle should be performed by a qualified DBA.

STEP 2: SETTING UP A JBOSS ENVIRONMENT IN IBSS

There are three steps that will need to be done in IBSS:

- **Step 1: Creating a New Subscriber**
- **Step 2: Creating a SoftRater Environment**
- **Step 3: Adding a Node**

Open an Internet Explorer web browser and browse to the following location, replacing ServerName with the actual server name where JBoss resides:

http://<ServerName or IP Address>:8080/IBSS

Security Enabled

Security is enabled by default; users are presented with a login screen. A user name and password must be entered to gain access. Information regarding the status of the system is presented but will not be accessible. The default is for security to be enabled.

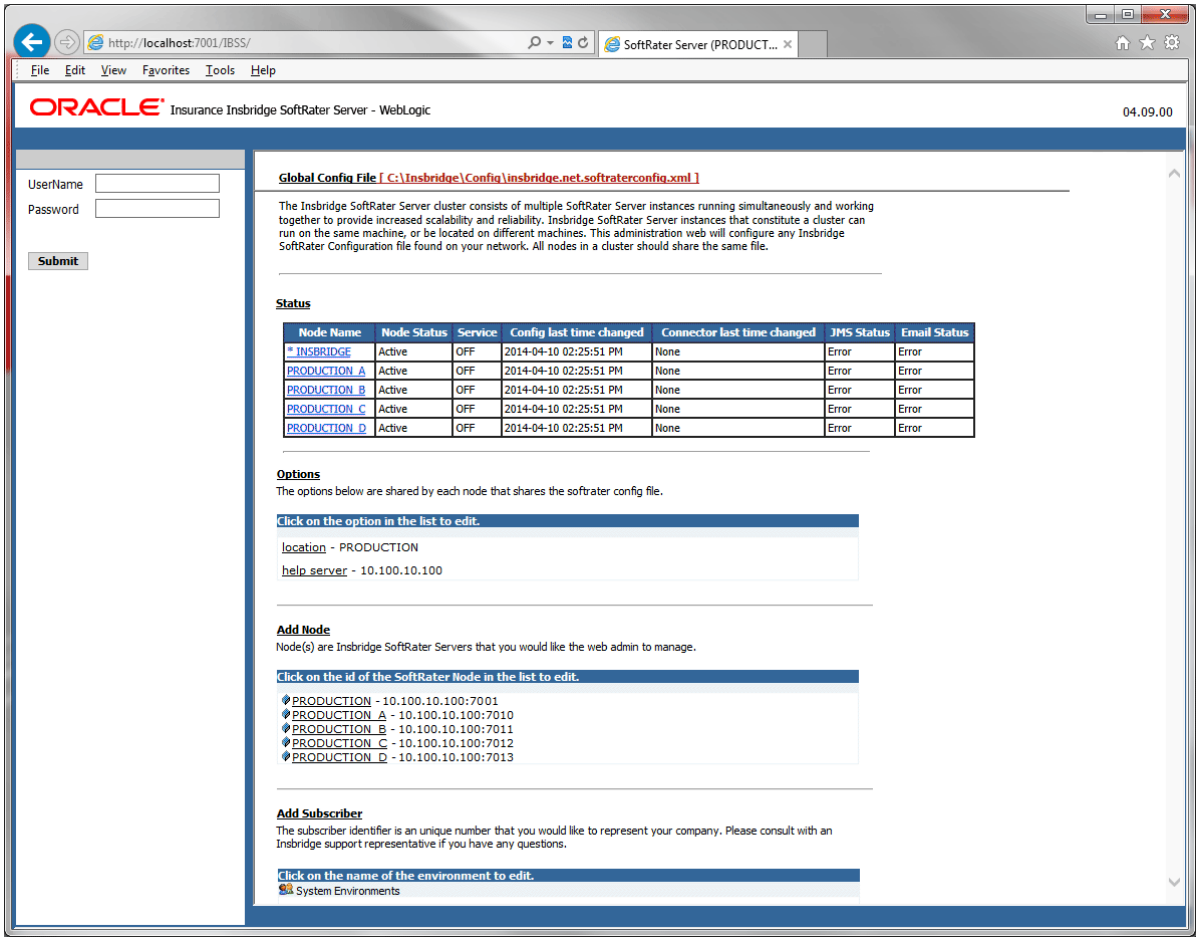


Figure 21 Security Enabled in IBSS

When Security is enabled, a default user “admin” with a default password of “insbridge” is assigned. This is the user name and password to be used the first time you enter IBSS. It is strongly recommended that the password be updated at the first log in.

IBSS Home

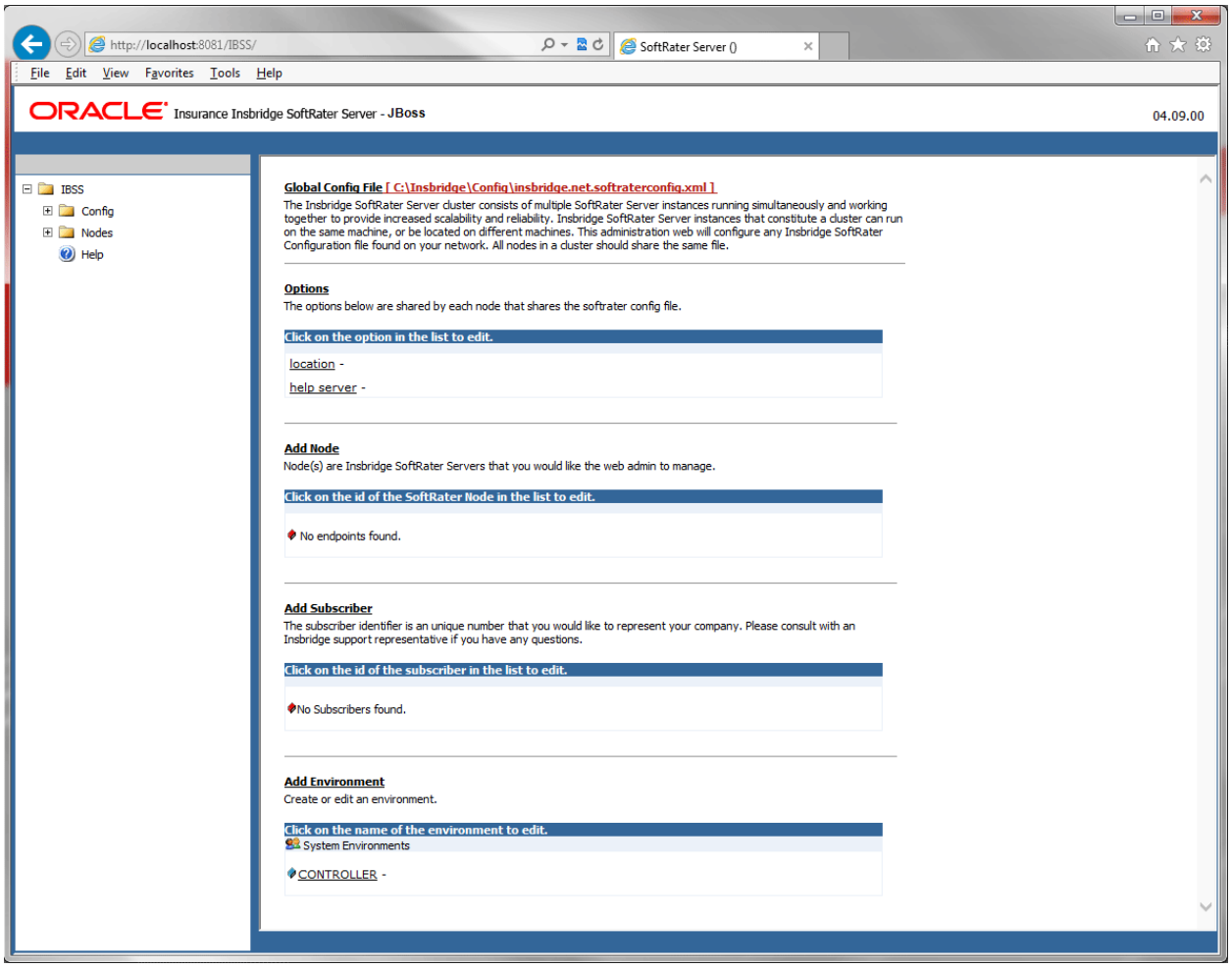


Figure 22 IBSS JBoss Main Page

NOTE: *The IBSS parameter in the application URL must be capitalized.*

Step 1: Creating a Subscriber:

A *subscriber* is a group or collective of users and environments under a single identity. This identity is used to manage and configure the group's activities and databases. A subscriber may be a single company, a group within a company, or a single person.

The ID and Name must match across all environments. If you have created a subscriber in IBFA, use the same ID and Name here. If you have not created a subscriber, you can create them here and then use the same information in other environments. The ID and Name are fixed after the first time you save. These entries cannot be edited.

1. Click on **Add Subscriber**. A separate screen is displayed.

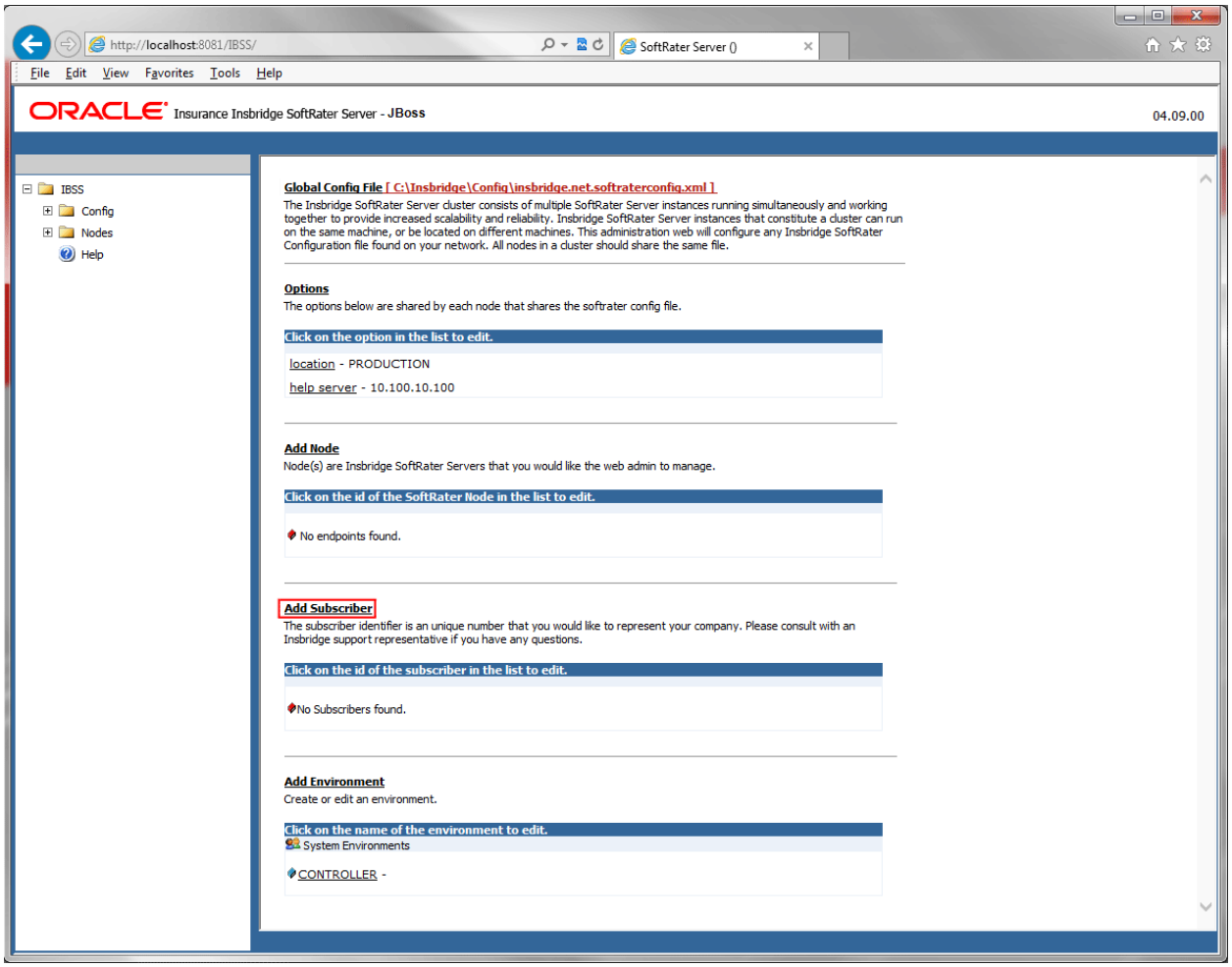


Figure 23 Adding a Subscriber

2. Enter the **ID**, and **Name** for your subscriber.

   The Subscriber ID can be a 1-5 digit number and must unique for each subscriber. For example, if you have an instance of IBFA on machine A, you can create a subscriber with an ID of 100. On machine A, if you create another subscriber, you must give that subscriber a different ID number, say 200. If you also have an instance of IBFA on a different machine, B for example, you should duplicate the same subscribers with the same ID numbers on machine B.

If you require assistance or are unsure of what action to take, please log a Service Request using My Oracle Support at https://support.oracle.com/.

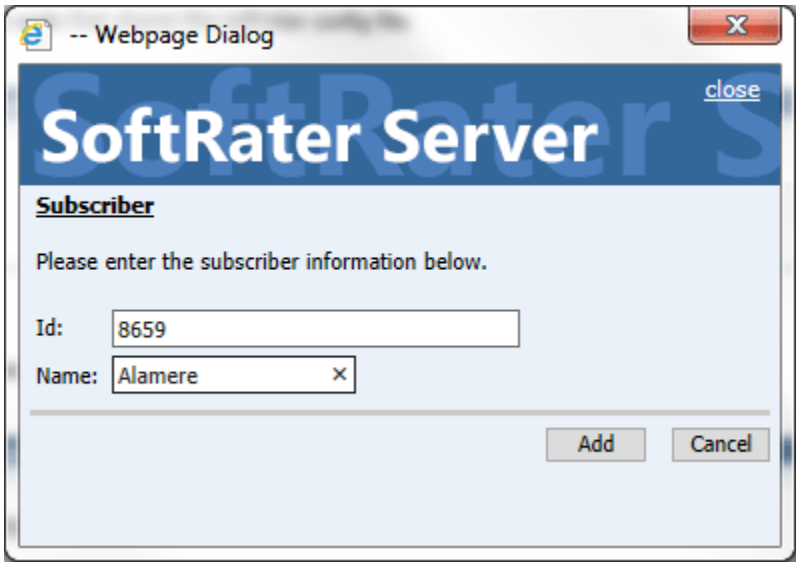


Figure 24 Enter ID

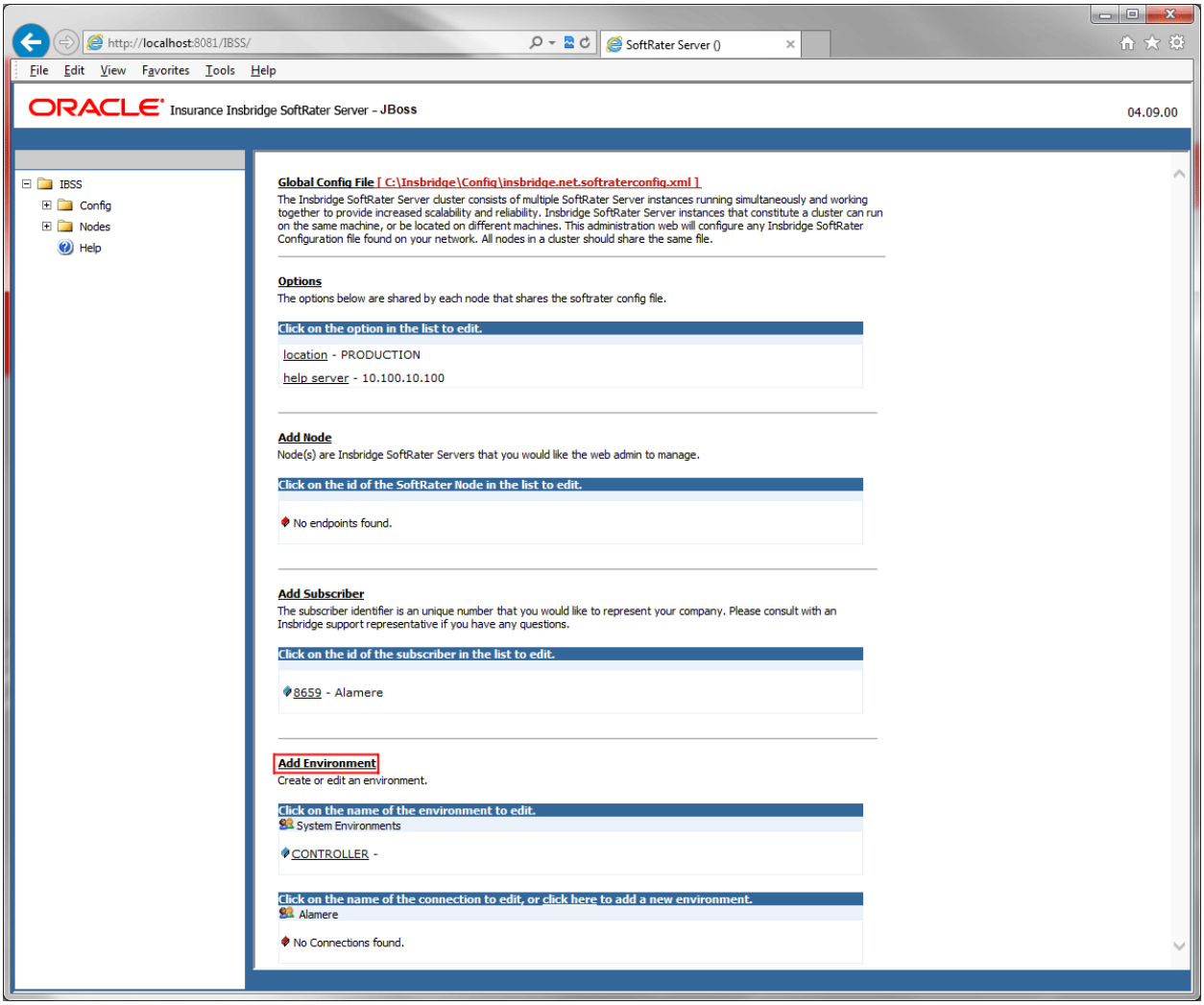
3. When you finish entering the information, click **Save**. The new subscriber will now be displayed in the list of subscribers.

NOTE: *Make note of the subscriber ID number. You may need to enter this on another IBFA or IBSS environment.*

Step 2: Creating a SoftRater Environment:

The **Environment Setup** section allows you to configure rating environments. An environment is a pointer to a location where SoftRater Packages (SRP's) are stored and loaded. There is no limit to the number of environments you may have.

1. Select **Add Environment** from the IBSS Main page. You will be placed on the environment window.



2. A separate screen is displayed. Enter the following information:

For DSN Entries

Subscriber: Select the name of the subscriber from the menu.

Environment Name: A name for the environment. This is the friendly name.

Environment Type: Select the type of connection:

- **DSN** – The connection information is held by the Insbridge system.
- **JNDI** – The connection is an EJB Lookup and information is not held by the Insbridge system.

Database Server: The name or IP address of the server where packages are loaded.

Database Port: Listening port for the target Database Management System.

Default port numbers:

- SQL Server – 1433
- Oracle – 1521
- DB2 – 50000

Query Block: For certain Database Management Systems (DBMS), system batch query optimization is required for performance and/or because of limits on/in the system. This value will control the maximum number of batch query operations that can be submitted to the target DBMS in any one transaction.

For DB2, enter a query size that is relative to the SQL statement heap size. For example, if your SQL statement heap size is 2048, you may want to enter a query size of 5. The larger the heap size, the larger the query size can be.

You may also need to increase the application heap size.

Query block is not needed for SQL Server or Oracle databases.

Database Name: The name of the database where packages are loaded.

Schema Name: The schema name for the database. Schema Name is not needed for SQL connections.

Database User Id: The username to access the database.

Database Password: The password for the username entered.

Provider Type: The type of the database

- **ORACLE**
- **DB2**
- **DB2(AS400)**
- **MS SQL SERVER**

Database Type: The type of database being accessed:

- **SoftRater – The default. This option should be used for most installations.**
- **RateManager** – Supported for selected installations. Please contact Support.
- **OTHER** – Not used at this time.

Data Dir: The location of the SoftRater Packages (SRP's) on the server.

Default Environment: Select if this is to be used as the default environment. The default environment is used when no environment is specified. There can be only one default environment. The default environment is indicated with a red icon.

3. When you are finished entering information, click **Save**.

Figure 25 Environment Setup

4. Before you can use the new or edited environment for rating, you need to reload the configuration XML file. This is done by resetting the environments. On the left hand side of the IBSS home page, expand Nodes and select the Reset Environments option. You will be placed on the Reset Environment Configuration page. Click **Execute**. The screen refreshes and each node will be reset. Click IBSS to return to the home page.

For JNDI Entries

Subscriber: Select the name of the subscriber from the menu.

Environment Name: A name for the environment. This is the friendly name.

Environment Type: Select the type of connection:

- **DSN** – The connection information is held by the Insbridge system.
- **JNDI** – The connection is an EJB Lookup and information is not held by the Insbridge system.

Name: The name of the data source.

Context Factory: A *URL context factory* is a special object factory that creates contexts for resolving URL strings.

RMI: The Java Remote Method Invocation used.

URL Host: The name or IP of the host server.

URL Port: The port number used by the host server.

Provider Type: The type of the database

- **ORACLE**
- **DB2**
- **DB2(AS400)**
- **MS SQL SERVER**

Database Type: The type of database being accessed:

- **SoftRater – The default. This option should be used for most installations.**
- **RateManager** – Supported for selected installations. Please contact Support.
- **OTHER** – Not used at this time.

Data Dir: The location of the SoftRater Packages (SRP's) on the server.

Default Environment: Select if this is to be used as the default environment. The default environment is used when no environment is specified. There can be only one default environment. The default environment is indicated with a red icon.

5. When you are finished entering information, click **Save**.

Figure 26 Creating a JNDI Environment

Before you can use the new or edited environment for rating, you need to reload the configuration XML file. This is done by resetting the environments. On the left hand side of the IBSS home page, expand Nodes and select the Reset Environments option. You will be placed on the Reset Environment Configuration page. Click **Execute**. The screen refreshes and each node will be reset. Click IBSS to return to the home page.

Step 3: Adding a Node:

Every IBSS instance requires a node. Nodes allow for the management of multiple environments from one location. Nodes contain cache and log information for each environment as well as a reset option.

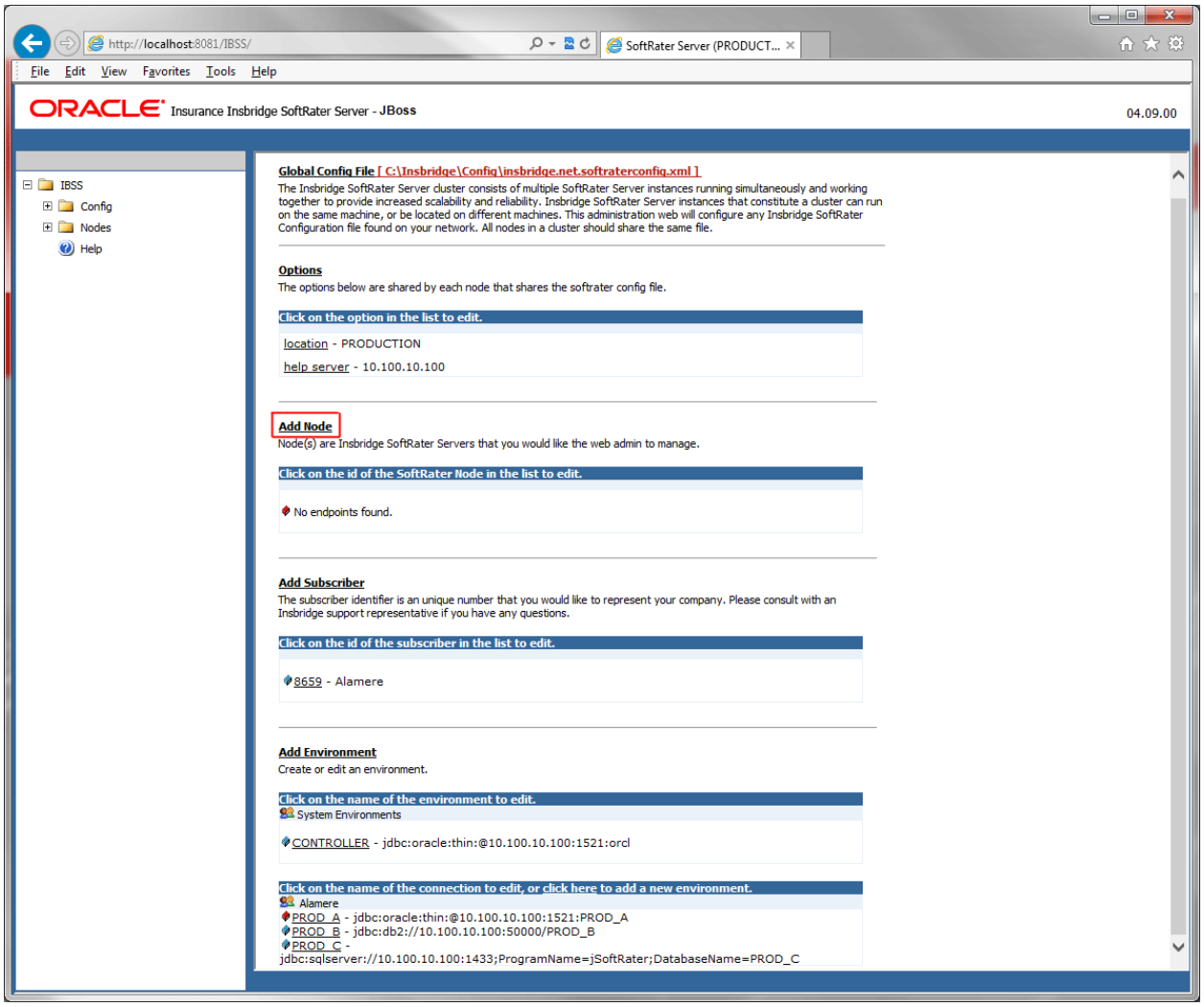


Figure 27 Adding a Controller Database Connection

To create a node, server information is needed:

- **Server OS**
- **Server Name or IP Address**
- **Port Used**

1. From the IBSS home page, click the **Add Node** link.
2. This opens the **Add Subscriber** window.

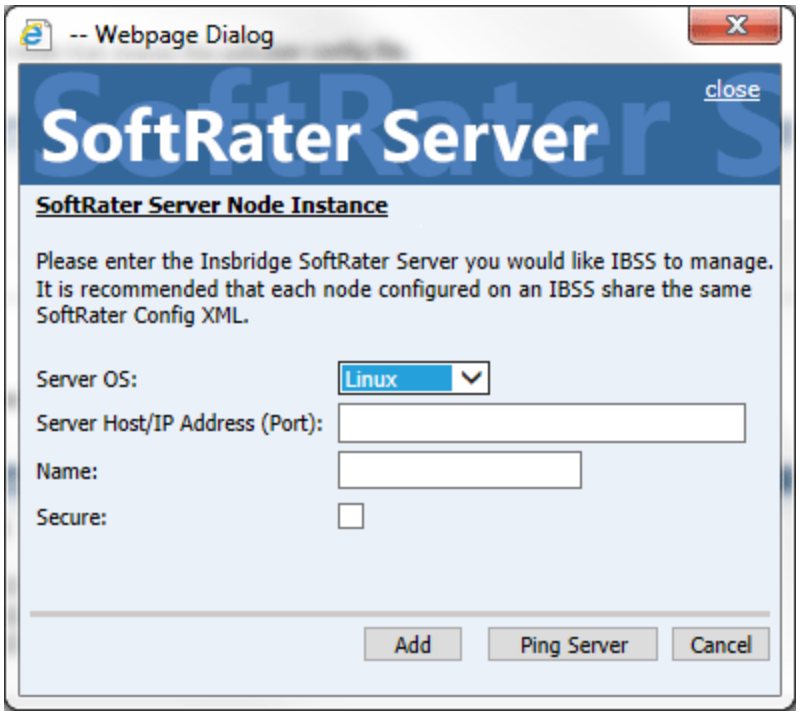


Figure 28 Adding a Node

3. Select the server operating system from the drop down. There are three choices, Linux, Mainframe and Windows.

4. Enter the server host name or IP address and port. The default ports:

   - **WebLogic:** Port 7001
   - **WebSphere:** Port 9080
   - **JBoss:** Port 8080

The format for this is: [SERVER NAME]:[PORT NUMBER]

5. Enter a friendly name. This is the name displayed for the node.

6. Check if this is a secure environment. A secure environment connects using HTTPS.

7. It is recommended that the Ping Server option be used to test the connection. This is an optional step but can be helpful. If a connection cannot be made, the node cannot be saved.

8. Click **Add** to add the node. If a node cannot be added, an error message is displayed. Please correct the error and try again.

NOTE: *It is recommended that server names or IP addresses be used over localhost.*

STEP 3: INSTALLATION OF ORACLE CLIENT

If the Oracle Client has already been installed and configured, you can skip this step. Return to the machine where the Insbridge system was installed. One instance of the Oracle client is all that is required. If you have more than one Oracle environment that you want to connect, for example a QA environment and a Production environment, you will only need to run the Oracle client once.

Running the Oracle Client

Run the Oracle Client. On the machine where the Insbridge system was installed, you will need to run the Oracle client. This will allow IBFA to communicate with the Oracle database.

For a 64-bit environment, please make sure you have the 64-bit Oracle Client.

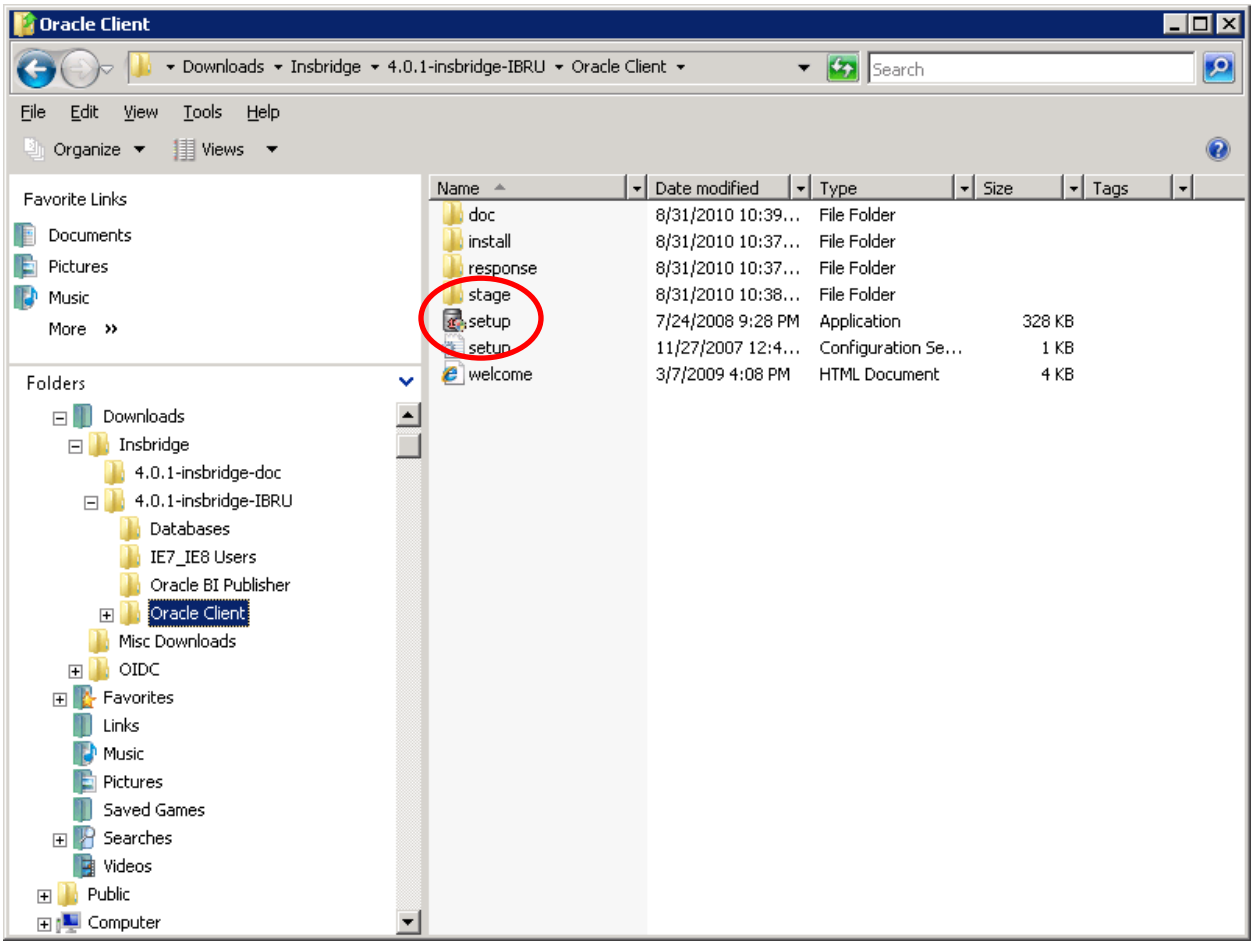


Figure 29 Locating the Oracle Client for 64-bit Installs

1. In the 04.09.00-insbridge-Insbridge folder, locate the Oracle Client folder.
2. Select the setup application. The Oracle client installation will begin.

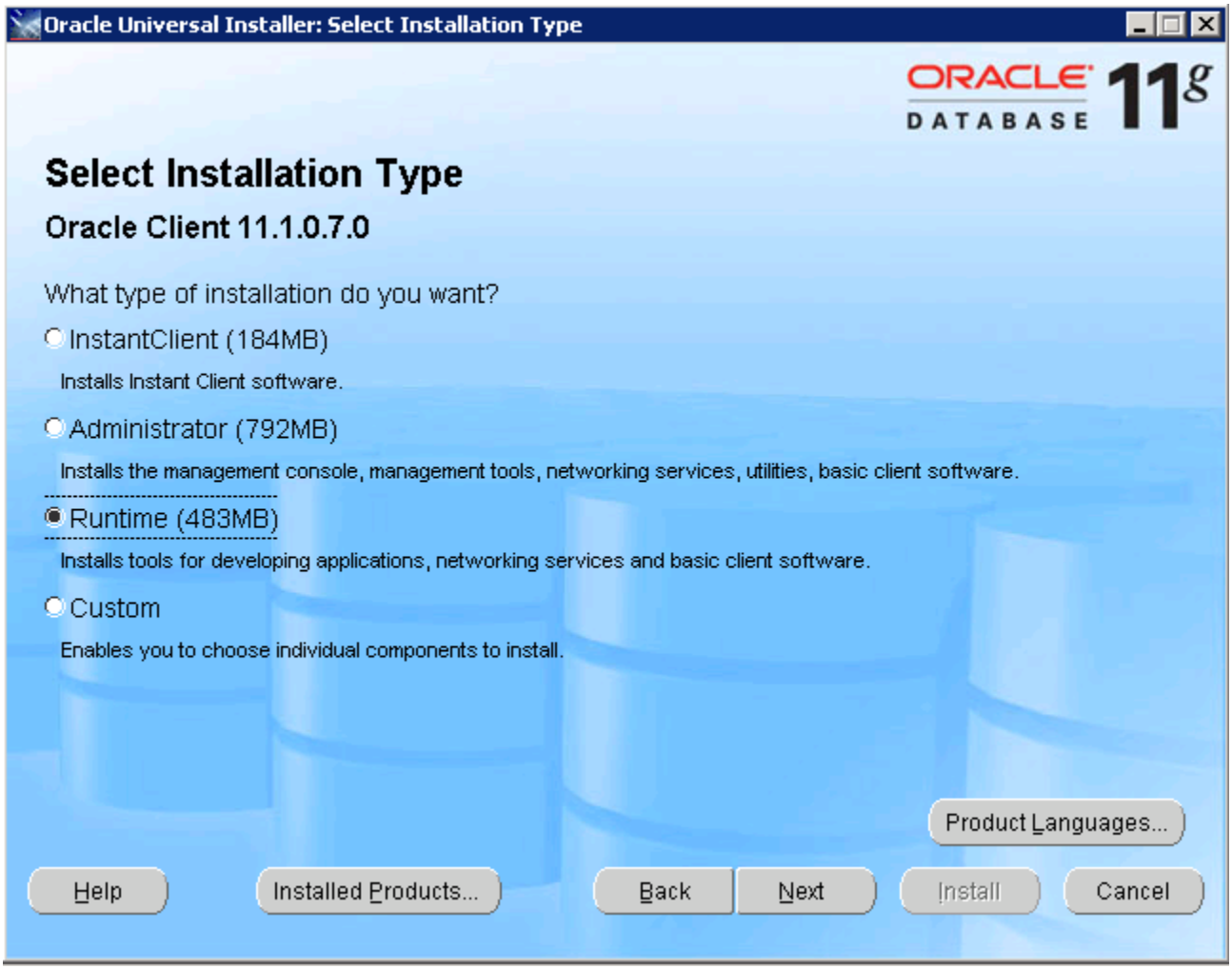


Figure 30 Running the Oracle Client

3. Select **RUNTIME** as the Installation Type.
4. Click **NEXT**.
5. For the Summary – Inside Oracle Providers for .NET, the Oracle Client, you must use a LOCAL DRIVE, i.e. C:\app\oracle-insbridge.
6. Click **NEXT**.
7. You can leave the defaults and **INSTALL**.

STEP 4: ENTERING YOUR IBSS INSTANCE IN IBFA

IBFA will need to communicate with the IBSS environment. This will allow for packages to be loaded. There are two parts that will need to be completed:

1. Create an environment.
2. Configure the environment.

A SoftRater environment may be completed at installation or can be added at a later time. A SoftRater environment can be on a Windows machine or a Java machine running an application server, such as JBoss. There is no limit to the number of SoftRater environments that you can have.

1. Enter IBFA.
2. Browse to **SoftRater→Explorer→Subscriber name**.
3. Click on **Add Environment**.
4. Enter a **Name** and select a **Type**. For example, you can create a Quality Control environment with a type of Quality Assurance.
5. Select the **Environments** link under the Configuration header on the left hand side to enter the configuration information for the newly created logical environment. You will be placed on the Environments screen. The environments you previously setup will be listed. If an environment is missing, you must return to the Configuration subtab and add it.

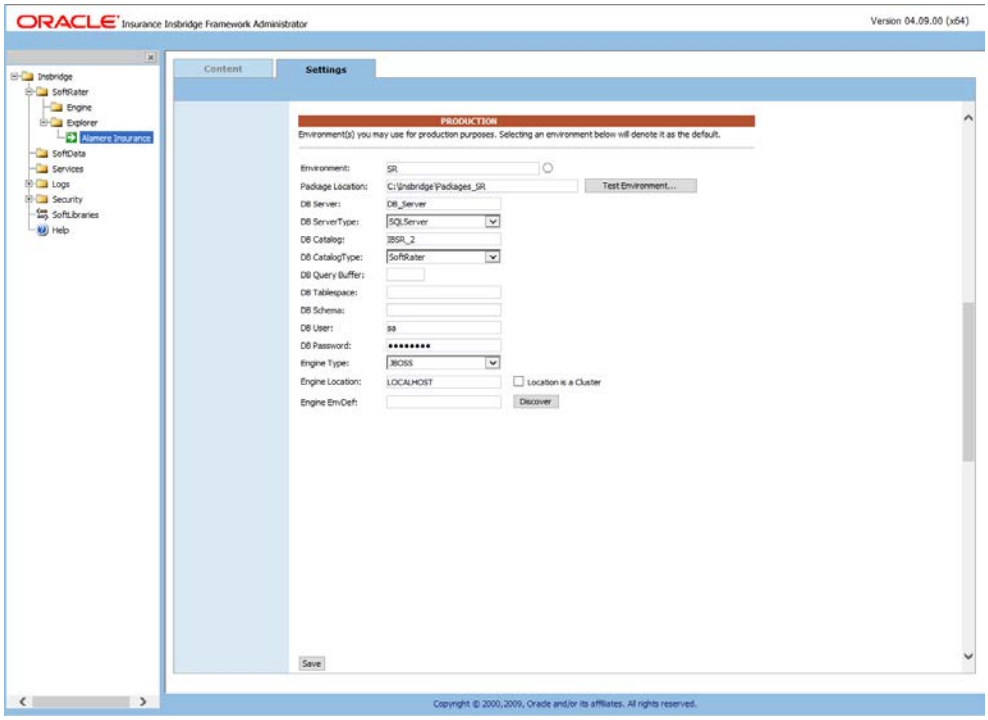


Figure 31 Editing Environment

6. The **Environment Name** will be complete. No changes are needed.

7. Enter in the file path where you want packages stored in the **Package Location**. Use the Test Environment option to have the location created for you.

8. Enter in the **DBServer** name or IP address. This is the database server where the SoftRater database was restored or created.

9. Select the **DB Server Type** that you are using.

10. The **DB Catalog** is the name of the SoftRater database restored in SQL Server. For example, IBSR_QA.

11. The **DB Catalog Type** is **SoftRater**.

12. **DB Query Buffer** is the Query Block entry from IBSS. An entry is required if you are using a DB2 database. For SQL or Oracle, no entry is needed.

13. **DB Tablespace** is not required for a SoftRater environment

14. The **DB Schema** is the name of the schema that defines the structure of the database. This information may be obtained from the DBA.

15. Enter the **DB User** name and **Password**.

16. Select the **Engine Type**.

17. The **Engine Location** is the location of where you installed the SoftRater engine. You can use the machine name or IP address. For WebSphere, WebLogic or JBoss, you must also include the port. For example, a JBoss server may have “WBServerName:8080” as the entry.

18. The **Engine EnvDef** is the machine name if the engine is located on a different server. You can use the machine name or IP address.

19. Click **SAVE** to save your entries.

NOTE: *If the JBoss environment is not responding, you may need to stop and start the JBoss service.*

For more information on setting up environments, please see the Insbridge Framework Administrator User Guide.

Chapter 6

INSTALLATION PROCEDURES – UTILIZING AN IBM DB2 DATABASE

The following is a check list of the installation steps needed to perform a NEW SoftRater for JBoss Installation utilizing an IBM DB2 (DB2) database:

1. Create a DB2 database.
2. Create a JBoss entry in IBSS.
3. Run the DB2 Client on the machine where the Insbridge system was installed.
4. Create a JBoss entry in IBFA

Required DB2 Client

To obtain the DB2 client, please visit the IBM website and download the Client for IBM Data Server Runtime Client, Version 9.5 with fix pack 8.

You also can perform a search for “IBM Data Server Runtime Client, Version 9.5 with fix pack 8”

NOTE: You may need to create a free user account to download materials.

STEP 1: CREATING A DB2 DATABASE

Because many corporate environments have a separation between the system administrator and the database administrator, the following process may require both administrators’ access and permissions.

IMPORTANT: *It is **strongly recommended** that any database modification be performed by a qualified database administrator (DBA). The database setup procedures and tasks require the skill set of a database administrator. If you are not a database administrator, please stop. Improper setup may result in unwelcome changes to the database. Please consult with a qualified database administrator before proceeding.*

Before proceeding, please have ready:

- The LOBs that your company uses. You will need the ID number for each LOB.
- Your subscriber number.
- Location of the Insbridge files.

Oracle Insurance does not have specific requirements, whatever requirements are deemed necessary by your company's internal standards will work. It is recommended that you included the version number or environment name if you are planning on creating more than one instance.

These instructions are high level and require that the setup person be a DBA.

1. On your DB2 database, run all **DDLs**.

NOTE: *If you do not have database permissions, you will not be able to perform the following database procedures. The Insbridge user must be granted "Connect to database". "Create Tables", and "Create packages" authorities.*

   a) Create default tablespace for the Soft Rater database.

      - If a database table needs to be added, the DDLs are located in the IBFA Installation Directory under the SoftRater/DDL folder. I.e. [INSTALL_DIR]/Insbridge/SoftRater/DDL.
      - You will have to replace the TABLESPACE name in the scripts with the tablespace name you used when you created the database.
      - On the DT tables, you will need to create one for every LOB. An example of the format is in the comments of the script. It requires the LOB ID number and the customer number.

   b) Create user IBSR and assign Connect to database, Create Tables and Create packages authorities.

2. On your DB2 database, you will need to run a DT table script for each LOB.

3. After all DT tables have been created, please make note of:

   - Schema
   - Instance
   - User name
   - Password

   This information will need to be passed along to the Insbridge installer. This information is needed to create a logical environment.

Location of DB2 DDL Directory

If a database table needs to be added in SoftRater, the DDLs are located in the IBFA Installation Directory under the SoftRater/DDL folder. I.e. [INSTALL_DIR]/Insbridge/SoftRater/DDL.

db2.create.dt.template.sql.txt
db2.create.packages.sql.txt
db2.create.packages_lk.sql.txt
db2.create.packages_rl.sql.txt
db2.create.packages_si.sql.txt
db2.create.packages_so.sql.txt

This information may be needed if you are attempting to add an LOB and receive missing table errors. Creating tables in DB2 should be performed by a qualified DBA.

STEP 2: ADDING DB2.JAR FILE

In order to establish a connection to DB2, the jar file **db2jcc** needs to be added to the server classpath before deployment. The required DB2.jar file is not a part of the Insbridge application installation.

Steps to Add the DB2. jar to the Server Classpath:

1. Download the db2jcc.jar file from http://www.java2s.com/Code/Jar/d/Downloaddb2jccjar.htm.
2. Save the db2jcc.jar file to some location in your machine, for example *<db2_location>.*
3. Create a new custom folder in <JBOSS_HOME>/modules/system/layers/base/com/**ibm/db2/jcc/main**.
4. Copy the **db2jcc.jar** file there from *<db2_location>* created in step 2.
5. Create a new file **module.xml** with the following content in the new folder under **main**:

```
<?xml version="1.0" encoding="UTF-8"?>
<module xmlns="urn:jboss:module:1.0" name="com.ibm.db2.jcc">
        <resources>
                <resource-root path="db2jcc.jar"/>
        </resources>
        <dependencies>
                <module name="javax.api"/>
                <module name="javax.transaction.api"/>
        </dependencies>
</module>
```

6. The db2 module must be added to all deployments in the **standalone.xml** file.

7. Find the location of the standalone.xml file : **<Jboss_home>\standalone\configuration**

NOTE: For standalone mode it is the standalone/configuration/standalone.xml file and for the domain mode it is domain/configuration/domain.xml.

8. Make a backup copy of the standalone.xml file for safety. If the file you are editing gets corrupted, you can restore the original file.

9. Add the following below the **<global-modules>** node under **server/profile/<subsystem xmlns="urn:jboss:domain:ee:1.1">**

   <subsystem xmlns="urn:jboss:domain:ee:1.1">
   <global-modules>
   <module name="com.ibm.db2.jcc" slot="main"/>
   </global-modules>
   <spec-descriptor-property-replacement>false</spec-descriptor-property-replacement>
   <jboss-descriptor-property-replacement>true</jboss-descriptor-property-replacement>
   </subsystem>

10. Save the standalone.xml file.

STEP 3: SETTING UP A JBOSS ENVIRONMENT IN IBSS

There are three steps that will need to be done in IBSS:

- **Step 1: Creating a New Subscriber**
- **Step 2: Creating a SoftRater Environment**
- **Step 3: Adding a Node**

Open an Internet Explorer web browser and browse to the following location, replacing ServerName with the actual server name where JBoss resides:

http://<ServerName or IP Address>:8080/IBSS

Security Enabled

Security is enabled by default; users are presented with a login screen. A user name and password must be entered to gain access. Information regarding the status of the system is presented but will not be accessible. The default is for security to be enabled.

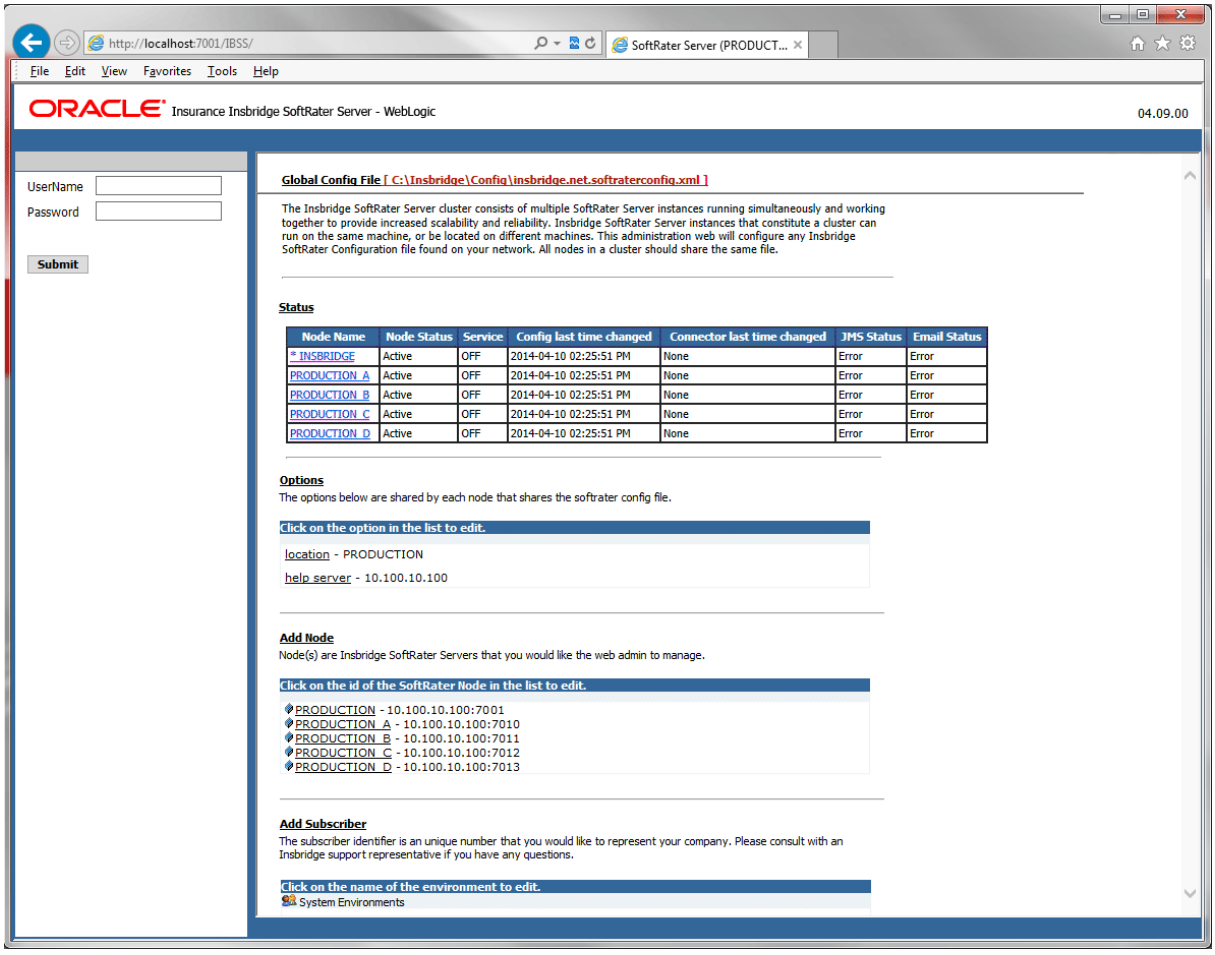


Figure 32 Security Enabled in IBSS

When Security is enabled, a default user “admin” with a default password of “insbridge” is assigned. This is the user name and password to be used the first time you enter IBSS. It is strongly recommended that the password be updated at the first log in.

IBSS Home

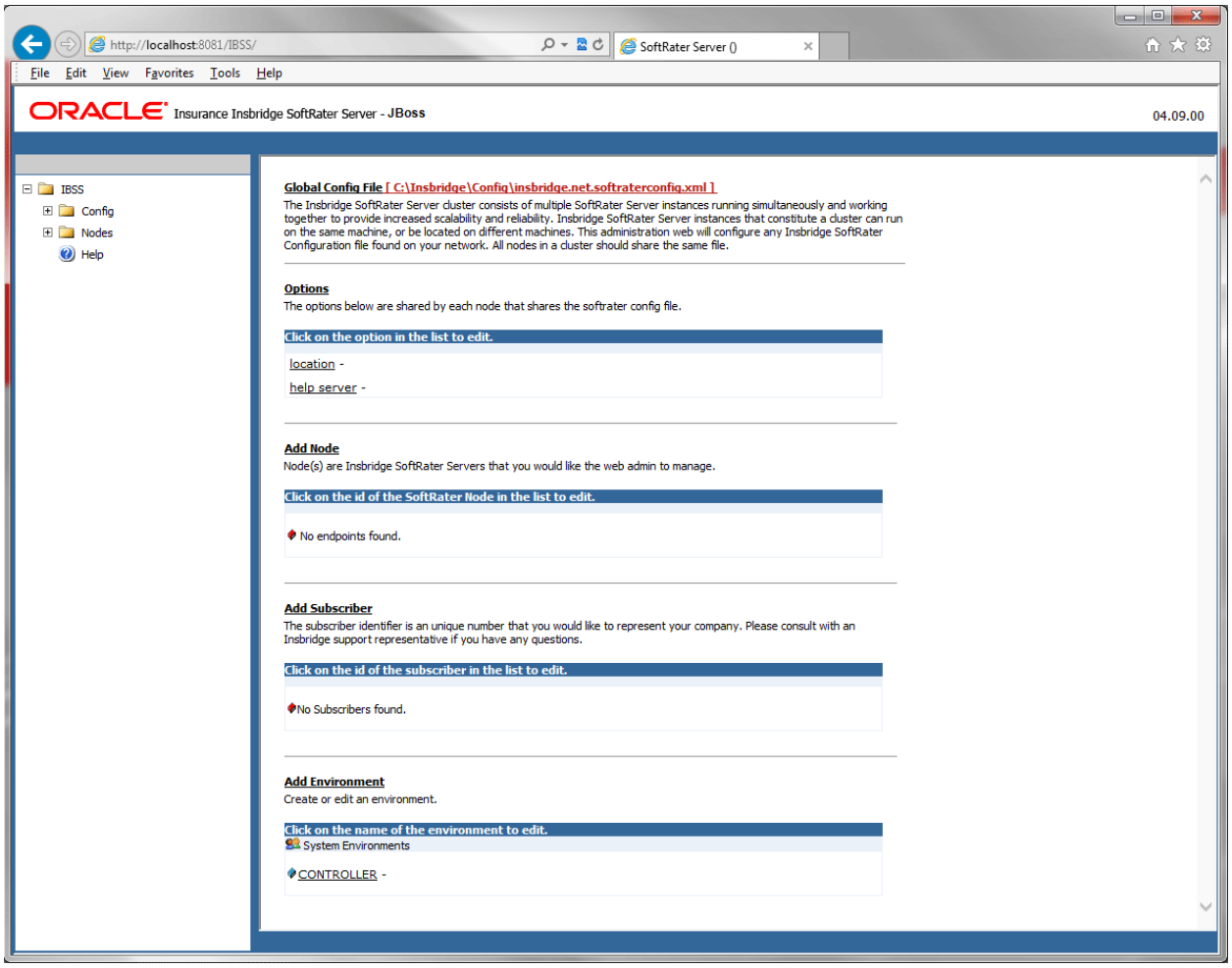


Figure 33 IBSS JBoss Main Page

NOTE: *The IBSS parameter in the application URL must be capitalized.*

Step 1: Creating a Subscriber:

A *subscriber* is a group or collective of users and environments under a single identity. This identity is used to manage and configure the group's activities and databases. A subscriber may be a single company, a group within a company, or a single person.

The ID and Name must match across all environments. If you have created a subscriber in IBFA, use the same ID and Name here. If you have not created a subscriber, you can create them here and then use the same information in other environments. The ID and Name are fixed after the first time you save. These entries cannot be edited.

1. Click on **Add Subscriber**. A separate screen is displayed.

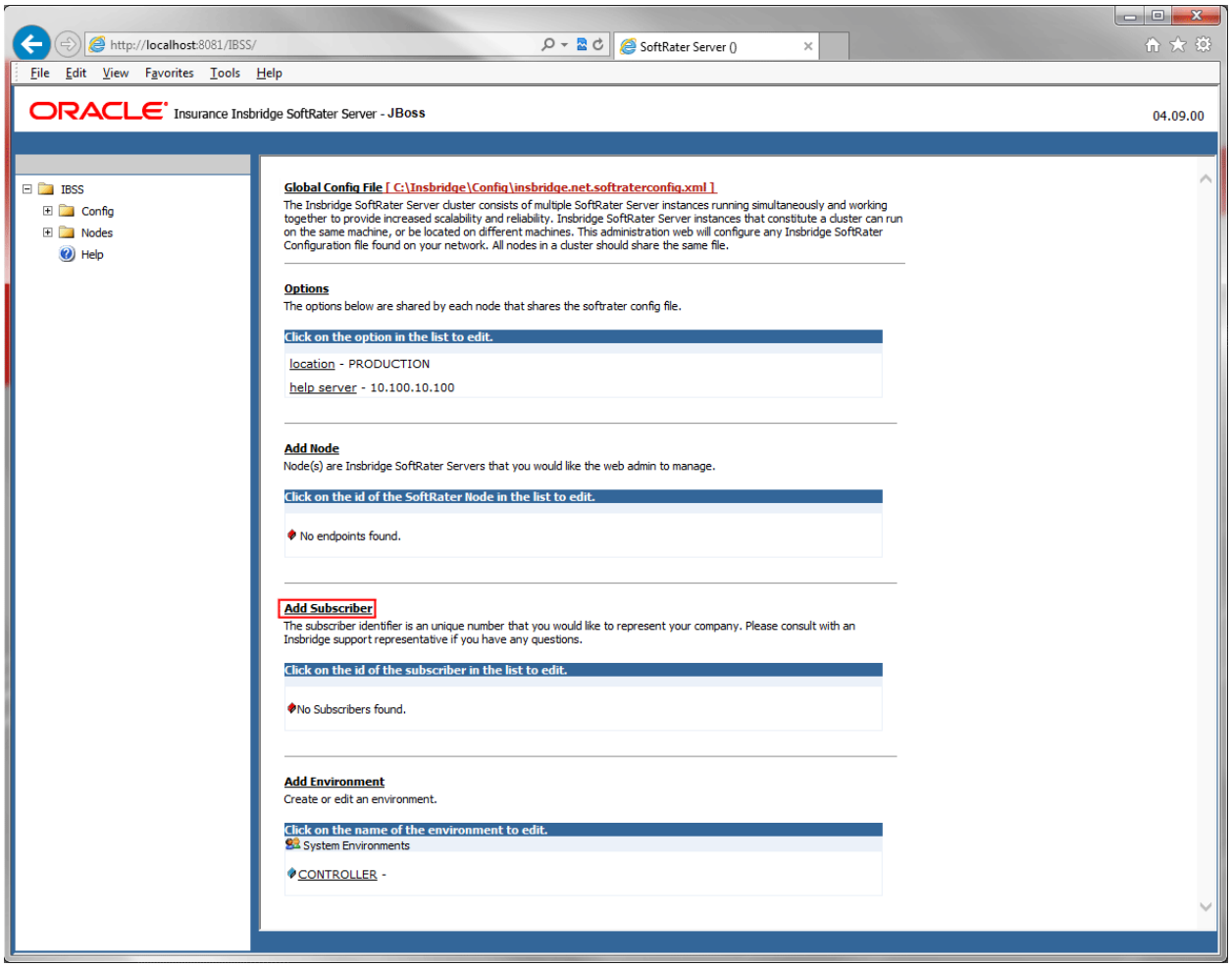


Figure 34 Adding a Subscriber

2. Enter the **ID**, and **Name** for your subscriber.

   The Subscriber ID can be a 1-5 digit number and must unique for each subscriber. For example, if you have an instance of IBFA on machine A, you can create a subscriber with an ID of 100. On machine A, if you create another subscriber, you must give that subscriber a different ID number, say 200. If you also have an instance of IBFA on a different machine, B for example, you should duplicate the same subscribers with the same ID numbers on machine B.

If you require assistance or are unsure of what action to take, please log a Service Request using My Oracle Support at https://support.oracle.com/.

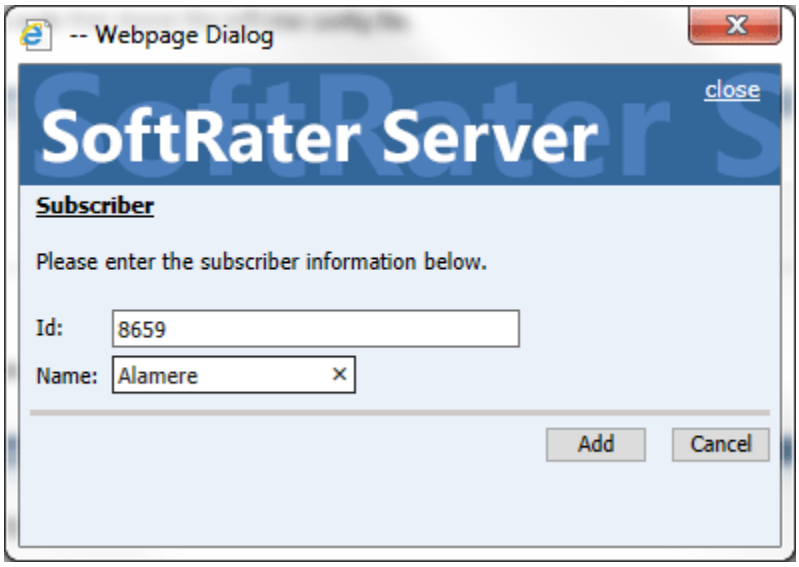


Figure 35 Enter ID

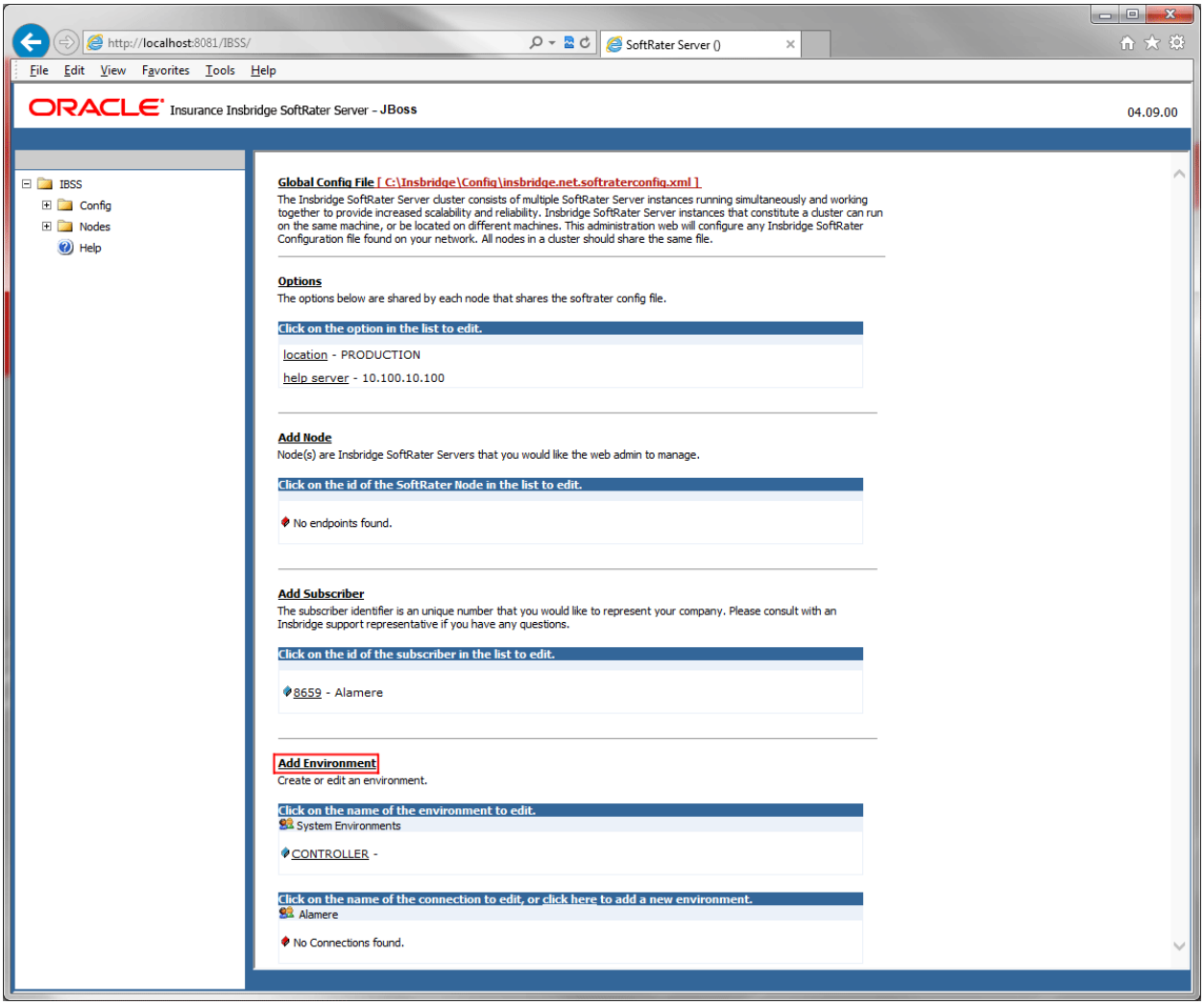
3. When you finish entering the information, click **Save**. The new subscriber will now be displayed in the list of subscribers.

NOTE: *Make note of the subscriber ID number. You may need to enter this on another IBFA or IBSS environment.*

Step 2: Creating a SoftRater Environment:

The **Environment Setup** section allows you to configure rating environments. An environment is a pointer to a location where SoftRater Packages (SRP's) are stored and loaded. There is no limit to the number of environments you may have.

1. Select **Add Environment** from the IBSS Main page. You will be placed on the environment window.



2. A separate screen is displayed. Enter the following information:

For DSN Entries

Subscriber: Select the name of the subscriber from the menu.

Environment Name: A name for the environment. This is the friendly name.

Environment Type: Select the type of connection:

- **DSN** – The connection information is held by the Insbridge system.
- **JNDI** – The connection is an EJB Lookup and information is not held by the Insbridge system.

Database Server: The name or IP address of the server where packages are loaded.

Database Port: Listening port for the target Database Management System.

Default port numbers:

- SQL Server – 1433
- Oracle – 1521
- DB2 – 50000

Query Block: For certain Database Management Systems (DBMS), system batch query optimization is required for performance and/or because of limits on/in the system. This value will control the maximum number of batch query operations that can be submitted to the target DBMS in any one transaction.

For DB2, enter a query size that is relative to the SQL statement heap size. For example, if your SQL statement heap size is 2048, you may want to enter a query size of 5. The larger the heap size, the larger the query size can be.

You may also need to increase the application heap size.

Query block is not needed for SQL Server or Oracle databases.

Database Name: The name of the database where packages are loaded.

Schema Name: The schema name for the database. Schema Name is not needed for SQL connections.

Database User Id: The username to access the database.

Database Password: The password for the username entered.

Provider Type: The type of the database

- **ORACLE**
- **DB2**
- **DB2(AS400)**
- **MS SQL SERVER**

Database Type: The type of database being accessed:

- **SoftRater – The default. This option should be used for most installations.**
- **RateManager** – Supported for selected installations. Please contact Support.
- **OTHER** – Not used at this time.

Data Dir: The location of the SoftRater Packages (SRP's) on the server.

Default Environment: Select if this is to be used as the default environment. The default environment is used when no environment is specified. There can be only one default environment. The default environment is indicated with a red icon.

3. When you are finished entering information, click **Save**.

Figure 36 Environment Setup

4. Before you can use the new or edited environment for rating, you need to reload the configuration XML file. This is done by resetting the environments. On the left hand side of the IBSS home page, expand Nodes and select the Reset Environments option. You will be placed on the Reset Environment Configuration page. Click **Execute**. The screen refreshes and each node will be reset. Click IBSS to return to the home page.

For JNDI Entries

Subscriber: Select the name of the subscriber from the menu.

Environment Name: A name for the environment. This is the friendly name.

Environment Type: Select the type of connection:

- **DSN** – The connection information is held by the Insbridge system.
- **JNDI** – The connection is an EJB Lookup and information is not held by the Insbridge system.

Name: The name of the data source.

Context Factory: A *URL context factory* is a special object factory that creates contexts for resolving URL strings.

RMI: The Java Remote Method Invocation used.

URL Host: The name or IP of the host server.

URL Port: The port number used by the host server.

Provider Type: The type of the database

- **ORACLE**
- **DB2**
- **DB2(AS400)**
- **MS SQL SERVER**

Database Type: The type of database being accessed:

- **SoftRater – The default. This option should be used for most installations.**
- **RateManager** – Supported for selected installations. Please contact Support.
- **OTHER** – Not used at this time.

Data Dir: The location of the SoftRater Packages (SRP's) on the server.

Default Environment: Select if this is to be used as the default environment. The default environment is used when no environment is specified. There can be only one default environment. The default environment is indicated with a red icon.

5. When you are finished entering information, click **Save**.

Figure 37 Creating a JNDI Environment

Before you can use the new or edited environment for rating, you need to reload the configuration XML file. This is done by resetting the environments. On the left hand side of the IBSS home page, expand Nodes and select the Reset Environments option. You will be placed on the Reset Environment Configuration page. Click **Execute**. The screen refreshes and each node will be reset. Click IBSS to return to the home page.

Step 3: Adding a Node:

Every IBSS instance requires a node. Nodes allow for the management of multiple environments from one location. Nodes contain cache and log information for each environment as well as a reset option.

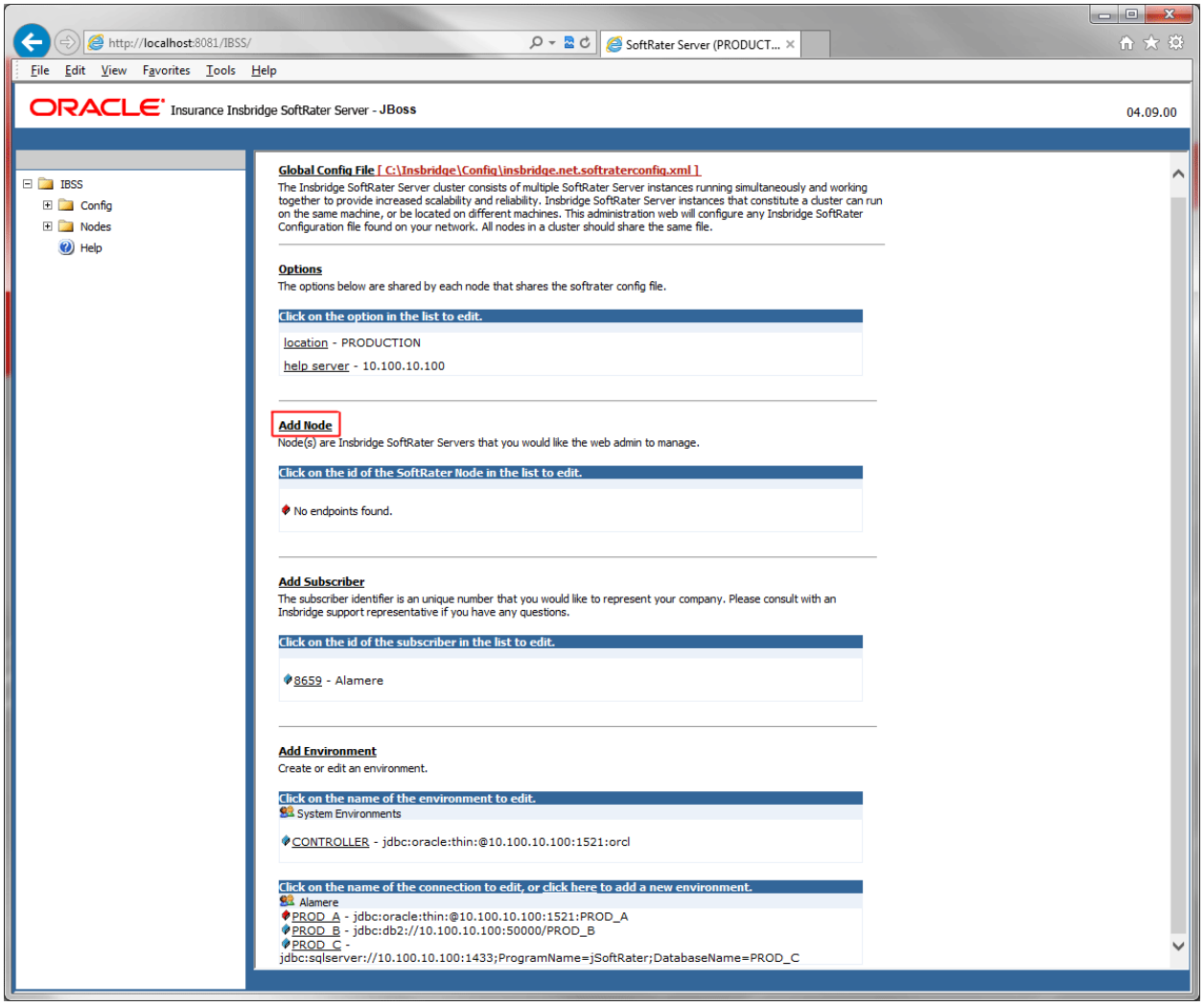


Figure 38 Adding a Controller Database Connection

To create a node, server information is needed:

- **Server OS**
- **Server Name or IP Address**
- **Port Used**

1. From the IBSS home page, click the **Add Node** link.
2. This opens the **Add Subscriber** window.

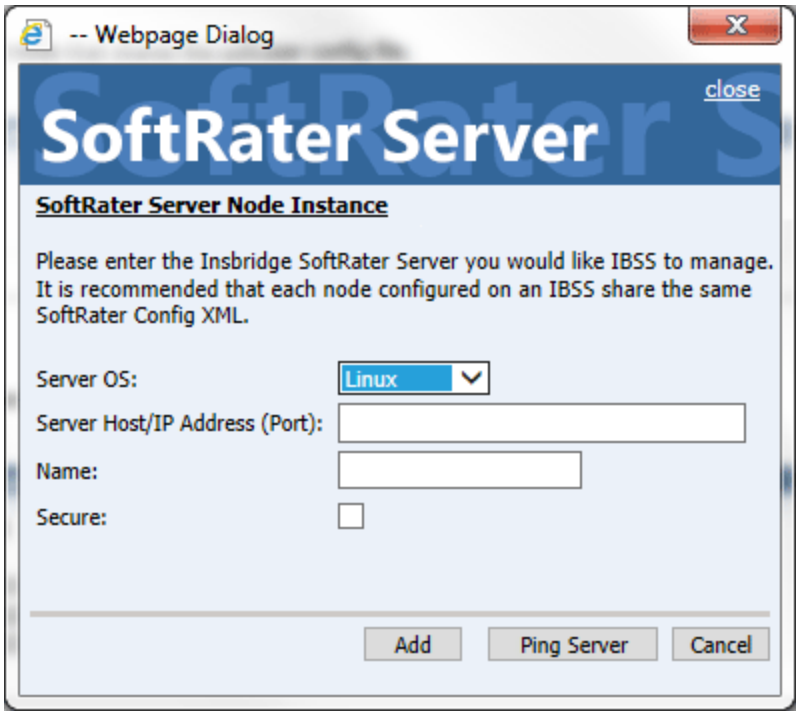


Figure 39 Adding a Node

3. Select the server operating system from the drop down. There are three choices, Linux, Mainframe and Windows.

4. Enter the server host name or IP address and port. The default ports:

   - **WebLogic:** Port 7001
   - **WebSphere:** Port 9080
   - **JBoss:** Port 8080

The format for this is: [SERVER NAME]:[PORT NUMBER]

5. Enter a friendly name. This is the name displayed for the node.

6. Check if this is a secure environment. A secure environment connects using HTTPS.

7. It is recommended that the Ping Server option be used to test the connection. This is an optional step but can be helpful. If a connection cannot be made, the node cannot be saved.

8. Click **Add** to add the node. If a node cannot be added, an error message is displayed. Please correct the error and try again.

NOTE: *It is recommended that server names or IP addresses be used over localhost.*

STEP 4: INSTALLATION OF DB2 CLIENT

If the DB2 Client has already been installed and configured, you can skip this step. Return to the machine where the Insbridge system was installed. One instance of the DB2 client is all that is required. If you have more than one DB2 environment that you want to connect, for example a QA environment and a Production environment, you will only need to run the DB2 client once.

Running the DB Client

Run the DB2 Client. On the machine where the Insbridge system was installed, you will need to run the DB2 client for the version you have. This will allow IBFA to communicate with the DB2 database.

For a 64-bit environment, please make sure you have the 64-bit DB2 Client.

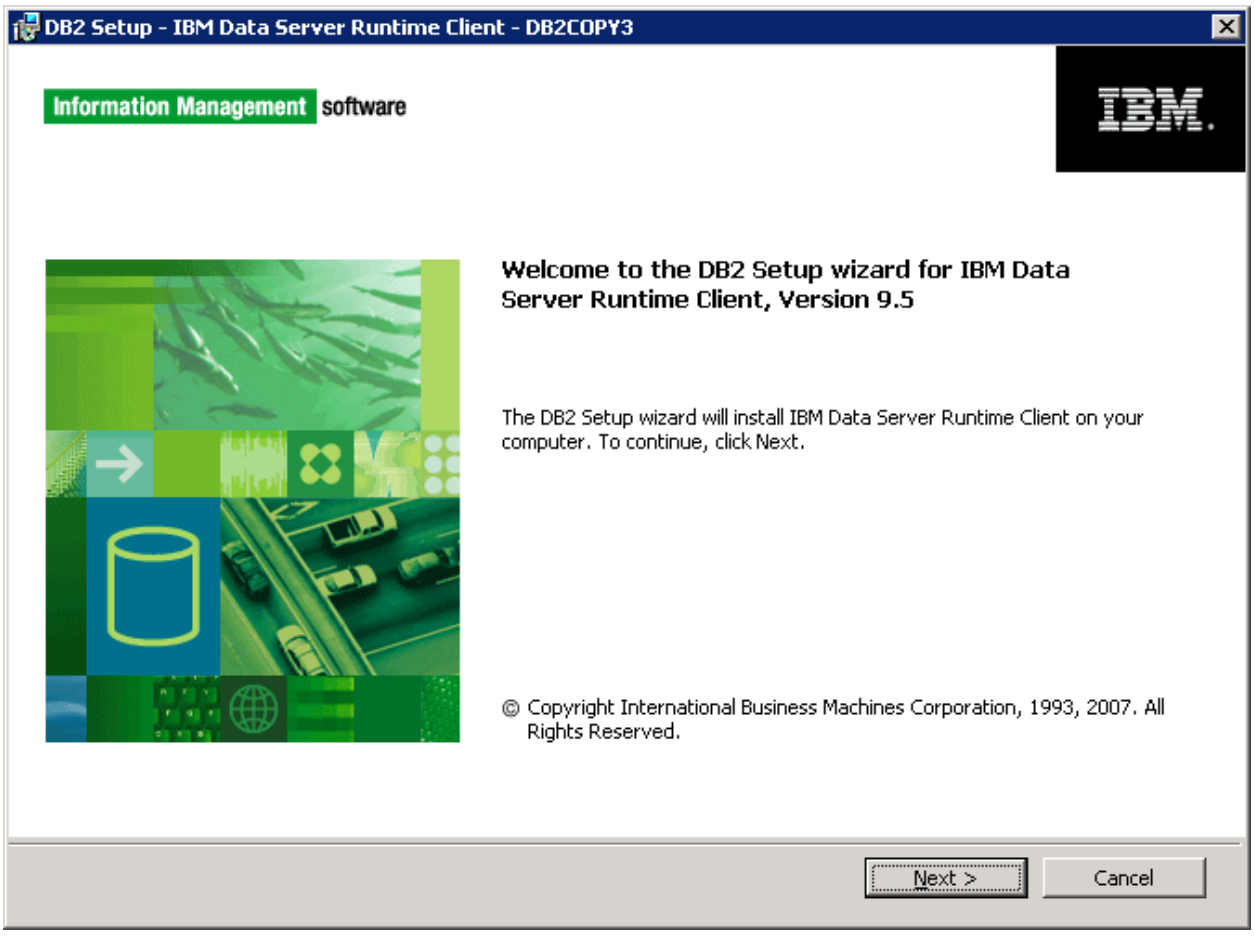


Figure 40 Installing DB2 Client and Fix Pack

1. Select the setup application. The DB2 client installation will begin.

2. Leave all the defaults and click **NEXT**. The installation will begin.
3. Click **NEXT** as the installation continues.
4. Click **Finish** to complete the installation.

STEP 5: ENTERING YOUR IBSS INSTANCE IN IBFA

IBFA will need to communicate with the IBSS environment. This will allow for packages to be loaded. There are two parts that need to be completed:

1. Create an environment.
2. Configure the environment.

A SoftRater environment may be completed at installation or can be added at a later time. A SoftRater environment can be on a Windows machine or a Java machine running an application server, such as JBoss. There is no limit to the number of SoftRater environments that you can have.

1. Enter IBFA.
2. Browse to **SoftRater→Explorer→Subscriber name**.
3. Click on **Add Environment**.
4. Enter a **Name** and select a **Type**. For example, you can create a Quality Control environment with a type of Quality Assurance.
5. Select the **Environments** link under the Configuration header on the left hand side to enter the configuration information for the newly created logical environment. You will be placed on the Environments screen. The environments you previously setup will be listed. If an environment is missing, you must return to the Configuration subtab and add it.

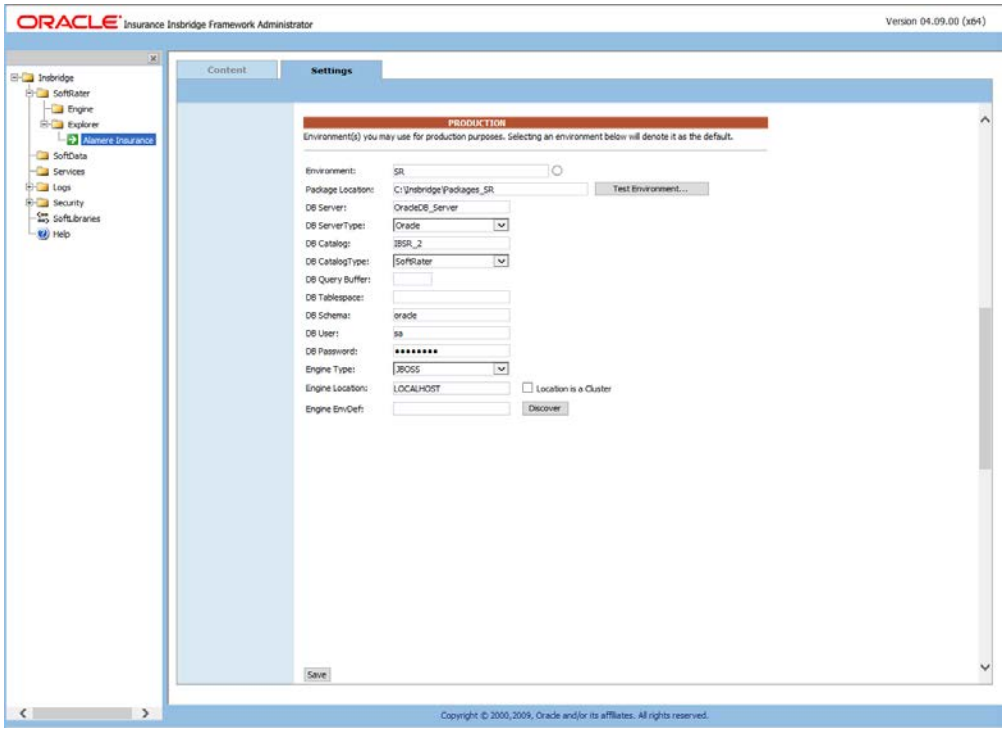


Figure 41 Editing Environment

6. The **Environment Name** will be complete. No changes are needed.

7. Enter in the file path where you want packages stored in the **Package Location**. Use the Test Environment option to have the location created for you.

8. Enter in the **DBServer** name or IP address. This is the database server where the SoftRater database was restored or created.

9. Select the **DB Server Type** that you are using.

10. The **DB Catalog** is the name of the SoftRater database restored in SQL Server. For example, IBSR_QA.

11. The **DB Catalog Type** is **SoftRater**.

12. **DB Query Buffer** is the Query Block entry from IBSS. An entry is required if you are using a DB2 database. For SQL or Oracle, no entry is needed.

13. **DB Tablespace** is not required for a SoftRater environment

14. The **DB Schema** is the name of the schema that defines the structure of the database. This information may be obtained from the DBA.

15. Enter the **DB User** name and **Password**.

16. Select the **Engine Type**.

17. The **Engine Location** is the location of where you installed the SoftRater engine. You can use the machine name or IP address. For WebSphere, WebLogic or JBoss, you must also include the port. For example, a JBoss server may have “WBServerName:8080” as the entry.

18. The **Engine EnvDef** is the machine name if the engine is located on a different server. You can use the machine name or IP address.

19. Click **SAVE** to save your entries.

NOTE: *If the JBoss environment is not responding, you may need to stop and start the JBoss service.*

For more information on setting up environments, please see the Insbridge Framework Administrator User Guide.

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. 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.

Address any additional inquiries to:

Oracle Corporation
World Headquarters
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Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:
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oracle.com

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