

Oracle Insurance IBRU ESI Guide

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Oracle Insurance Insbridge Rating and Underwriting ESI Guide

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Primary Authors: Mary Elizabeth Wiger, Aidi Niu

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Oracle Insurance Insbridge Rating and Underwriting ESI Guide

Preface

Welcome to the *Oracle Insurance Insbridge Rating and Underwriting ESI Guide*. This guide describes how you can configure and use the Insbridge Extended Services Interface (ESI).

Audience

This guide is intended for application developers, programmers and others tasked with configuring the ESI interface. Users should be familiar with Visual Studio.

System Requirements

Oracle Insurance recommends the following system requirements for client workstations for optimal performance. Currently, Insbridge ESI only supports US English.

Insbridge ESI Clients:

- Operating System – Windows 2000 Professional (with service pack 3 or later) or Windows XP Professional (with service pack 1a or later)
- Microsoft .NET 2.0 and 3.5
- Microsoft Web Services Enhancements 3.0 for Microsoft .NET Framework

Additional Information

For more information, see these Oracle Insurance resources:

- Oracle Insurance IBRU RateManager User Guide
- Oracle Insurance IBFA User Guide
- Oracle Insurance ESI_Help.chm file

Notational Conventions

This section explains the conventions used in this book:

- Menu selections are shown with arrows. For example, the command to select the **Print** choice from the **File** menu looks as follows:

Select **File**➤**Print**

- File names, path names and actions to be taken are shown in **bold**.
- New or emphasized terms are shown in *italics*.
- `Monospace` type indicates code that appears on the screen or that you must enter.

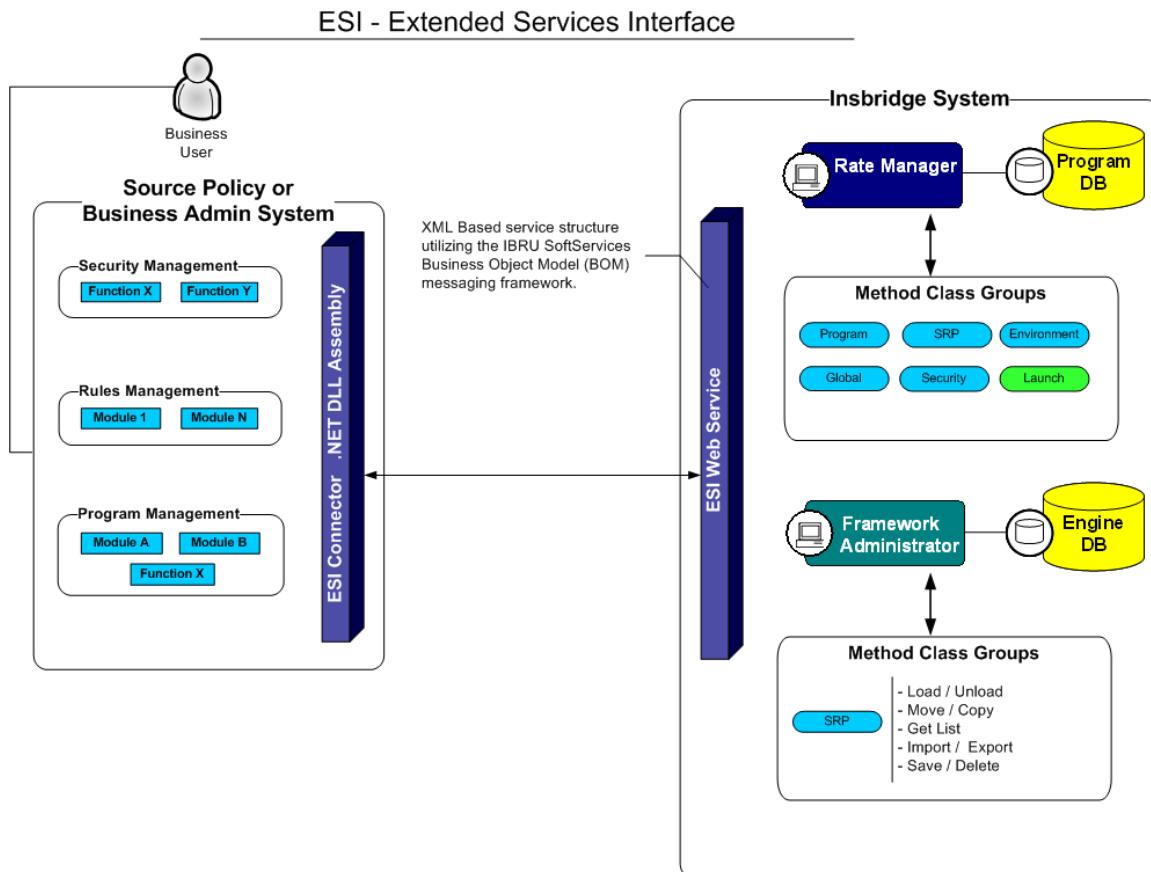
Manual History

New editions incorporate any updates issued since the previous edition.

Edition	Publication Number	Product Version	Publication Date	Comment
1 st Edition	P01-767-01	V 3.11.01	December 2008	Initial release
2 nd Edition	P01-767-02	V 3.12.00	July 2009	Update Version

Introduction to Insbridge Extended Services Interface

Oracle Insurance Insbridge Rating and Underwriting Extended Services Interface (ESI) is a library module designed to provide remote services to the Insbridge Rating and Underwriting (IBRU) business services without directly utilizing the system User Interfaces (UI).



ESI allows users to pass information between a user's source policy or business admin system and the RateManager system or the Insbridge Framework Administrator (IBFA) without using either the RateManager or IBFA UI. Information is passed through a custom built interface that resides on a source policy or business admin system on the client side to the ESI web service that resides on the IBRU side. The information is processed and results returned from the ESI web service back to the custom built interface into the client's source policy or business admin system.

ESI is designed to operate on Insbridge version 3.11 or higher and will connect with:

- Oracle Insurance IBRU RateManager Interface
- Oracle Insurance Framework Administrator Interface

For example, if you had a vendor Policy Administration system and wanted to provide integrated product management through your custom solution; ESI would allow you to model and use the workflow of the IBRU business services and functions but control all the user presentation aspects through your custom product interface.

Rule and Functionality Highlights

- ESI is available on Insbridge Rating and Underwriting version 3.11 or higher.
- ESI will be loaded with the IBFA installation. To locate ESI, look under the Insbridge directory for the SDK/ESI file; [INSTALL_DIR]\Insbridge\SDK\ESI. This file will contain two items:
 - Insbridge.Net.Fwk.ESI.dll
 - ESI_Help.chm
- ESI entries are immediate. There is no lag time or system sync required.
- An ESI cannot be recalled or undone. If an ESI needs to be edited, for example a folder has an incorrect name; you must enter RateManager or IBFA and make the changes there.
- ESI works with the default subline in the folder of your choice for any line of business.
- Unless specifically stated as Optional, all Inputs are **Required**.

NOTE

For further details, please see the ESI_Help.chm file.

Base Domain Types

Base ESI domain types represent the business nouns within the Insbridge system. These data structures represent the majority of the business payload.

ESI_Category

```
public class ESI_Category
{
    public int Id;
    public int Line;
    public string Name;
    public int ParentId;
}
```

ESI_DataTypes

```
public enum ESI_DataTypes
{
    dtInteger = 0,
    dtString = 1,
    dtFloat = 2,
    dtDate = 3
}
```

ESI_Environment

```
public class ESI_Environment
{
    public string Name;
    public ESI_EnvironmentTypes Type;
    public bool Secure;
    public bool Default;

}
```

ESI_EnvironmentTypes

```
public enum ESI_EnvironmentTypes
{
    ALL = -1,
    DEV = 0,
    QA = 1,
    PROD = 2
}
```

ESI_Exception

```
public class ESI_Exception : Exception
{
    public ESI_Exception Level;
    public string Message;
    public string Stack;
}
```

ESI_ExceptionLevel

```
public enum ESI_ExceptionLevel
{
    Critical = 1,
    Warning = 2,
    Information = 3
}
```

ESI_FolderGroup

```
public class ESI_FolderGroup
{
    public int Id;
    public int Line;
    public string Name;
    public int ParentId;
}
```

ESI_Input

```
public class ESI_Input
{
    public int Id;
    public int Line;
    public string Name;
    public int Category;
    public ESI_DataTypes Type;
}
```

ESI_LOB

```
public class ESI_LOB
{
    public int Id;
    public string TypeDesc;
    public string DateMask;
    public int Active;
}
```

ESI_Program

```
public class ESI_Program
{
    public ESI_ProgramTypes Type;
    public string Name;
    public int Line;
    public int Id;
    public int FolderGroup;
    public string DateMask;
    public string Description;
    public string Note;
    public int StateId;
}
```

NOTE

For Version 3.12, the public string NOTE will no longer be available due to a schema change. That attribute must be left blank.

ESI_ProgramTypes

```
public enum ESI_ProgramTypes
{
    ptProgram    = 0,
    ptWorkflow   = 1
}
```

ESI_ProgramVersion

```
public class ESI_ProgramVersion
{
    public int Line;
    public int ParentProgramId;
    public int VersionNumber;
    public int FolderGroup;
    public string Name;
    public List<string> EffectiveDates;
}
```

ESI_SRP

```
public struct ESI_SRP
{
    public string FileName;
    public ESI_Environment Environment;
    public ESI_SRPSummary SummaryInfo;
    public ESI_SRPStatusTypes Status;
}
```

ESI_SRPStatusTypes

```
public enum ESI_SRPStatusTypes
{
    sstNotLoaded = 0,
    sstLoaded = 1,
    sstLoadedButNotOnDisk = 2
}
```

ESI_SRPSummary

```
public struct ESI_SRPSummary
{
    public int Line;
    public string LineName;
    public int Program;
    public string ProgramName;
    public int Version;
    public string CreateBy;
    public string CreateDate;
}
```

ESI_User

```
public class ESI_User
{
    public string Id;
    public string UserName;
    public string FirstName;
    public string LastName;
    public string Department;
    public string CompanyId;
    public string PhoneNumber;
    public string eMail;
    public bool PasswordExpires;
    public List<ESI_UserGroup> Groups;
}
```

ESI_UserGroup

```
public class ESI_UserGroup
{
    public string Id;
    public string Name;
    public string Description;
}
```

Use Case Summary

The following table is a quick guide to the function available for ESI.

Business Use Case	Methods to Use	Result
General – Open URL		
Create Launch Definition – using a Network login	General – CreateLaunchDefinition (Network Login)	Method will return a URL for an existing program using a network login.
Create Launch Definition – using a RateManager login	General – CreateLaunchDefinition (RateManager Login)	Method will return a URL for an existing program using a RateManager login.
Programs		
Add	Program Items – CreateProgram	Create a new program.
Add New Version	Program Items – CreateProgramVersion	Creates a new version of an existing program.
Copy a Program Version	Program Items – CopyProgramVersion	Copies an existing Insbridge program version to a new specified version.
Delete	Program Items – DeleteProgram	Removes a program.
Folder Groups		
Add	Program Items – CreateFolderGroup	Creates a new folder.
Delete	Program Items – DeleteFolderGroup	Removes a folder.
List Folders	Program Items – GetAvailableFolderGroups	Returns a list of folders in an LOB.
List Folders	Program Items – GetAvailableFolderGroupsXML	Returns an XML string of all available folders in an LOB.
Update	Program Items – UpdateFolderGroup	Updates the name or location of a folder.

Line of Business		
Add	<u>Program Items – CreateLine</u>	Creates a new LOB.
Update	<u>Program Items – UpdateLOB</u>	Updates an LOB.
SRP – RateManager		
Add	<u>SRP Items – CreateSRP</u>	Creates an SRP and returns the SRP object.
Global Items		
Add	<u>Global Items – CreateInput</u>	Creates a new input.
Add	<u>Global Items – CreateCategory</u>	Creates a new category.
Add	<u>Global Items – CreateCategory with Inputs</u>	Creates a new category that includes inputs.
Add	<u>Global Items – CreateCategoriesFromXML</u>	Creates a new category using an XML string.
List Inputs	<u>Global Items – GetInputsXML</u>	Returns an XML string of all inputs in an LOB.
List Inputs	<u>Global Items – GetCategoryXML</u>	Returns an XML string of all categories in an LOB.
Security Items		
Add	<u>Security Items – CreateUser</u>	Creates a new user.
List	<u>Security Items – GetAvailableUserGroups</u>	Returns a list of all available user groups.
Update	<u>Security Items – UpdateUser</u>	Updates a user's information.
Environment Items		
List	<u>Environment Items – GetAvailableEnvironments Non-Secured</u>	Returns a list of all available non-secured environments.
List	<u>Environment Items – GetAvailableEnvironments, Selected</u>	Returns a list of all available environments within a selected environment type.

Business Use Case	Methods to Use	Result
SRP– IBFA		
Copy	<u>SRP Items – CopySRP</u>	Copies an SRP from the current environment into a selected environment.
Delete	<u>SRP Items – DeleteSRP</u>	Deletes an SRP from the disk.
Export	<u>SRP Items – ExportSRP</u>	Exports an SRP from IBFA and converts it to bytes.
Import	<u>SRP Items – ImportSRP</u>	Imports SRP bytes into an IBFA environment.
List	<u>SRP Items – GetSRPList, All</u>	Returns a list of all ESI created SRPs in a select environment.
List	<u>SRP Items – GetSRPList, Selected</u>	Returns a list of certain types of SRPs in a select environment.
Load	<u>SRP Items – LoadSRP</u>	Loads an SRP into an IBFA environment.
Move	<u>SRP Items – MoveSRP</u>	Moves an SRP from the current environment to the passed environment
Save	<u>SRP Items – SaveFile</u>	Saves the bytes you pass into a physical file.
Unload	<u>SRP Items – UnloadSRP</u>	Unloads an SRP from a selected environment.

RateManager Interface

Class Definition

```
public class RateManager
{
    public const string gAppID = "RateManager";

    public RateManager( string ApplicationTokenKey,
                        int SubscriberID,
                        string UserID,
                        string TargetInstance)

    public RateManager( string ApplicationTokenKey,
                        int SubscriberID,
                        string TargetInstance)
```

Environment Items – GetAvailableEnvironments, All Non-Secured

Business Functionality

- Gets all the available non-secured environments.
- This ESI interfaces provides the ability for an external system to programmatically retrieve meta-data about all the available non-secured Environments in order for the system to programmatically invoke the other ESI deployment related API's.

Inputs

- No inputs

Outputs

- List of ESI_Environment objects.

Environment Items – GetAvailableEnvironments, Selected

Business Functionality

- Gets all the available environments for a particular environment type.
- This ESI interfaces provides the ability for an external system to programmatically retrieve meta-data about the available Environments in order for the system to programmatically invoke the other ESI deployment related API's and pass in the correct environment data object.

Inputs

- Environment Type
- Include Secured or Not

Outputs

- List of ESI_Environment objects.

General – CreateLaunchDefinition (Network Login)

Business Functionality

- Method will return a URL for an existing program or folder. This method uses the Network login for authentication. Requires custom authentication setup in RateManager Security. See Authentication.

Inputs

- Line ID
- Folder or Program ID
- URL Level

Outputs

- Returns a URL string to launch a Program or Folder.

General – CreateLaunchDefinition (RateManager Login)

Business Functionality

- Method will return a URL for an existing program or folder. This method uses the standard RateManager login for authentication.

Inputs

- Line ID
- Folder or Program ID
- URL Level

Outputs

- Returns a URL string to launch a Program or Folder.

Global Items – CreateInput

Business Functionality

- Creates a new global level input in a particular LOB.

Inputs

- ESI_Input object

Outputs

- Returns the ID of the newly created Input if succeeded or -1 if failed.

Global Items – CreateCategory

Business Functionality

- Creates a category in a particular LOB.

Inputs

- ESI_Category object

Outputs

- Returns the ID of the newly created Category if succeeded or -1 if failed.

Global Items – CreateCategory with Inputs

Business Functionality

- Creates a category with inputs in a particular LOB.

Inputs

- ESI_Category object
- List of ESI_Input objects

Outputs

- No outputs.

Global Items – CreateCategoriesFromXML

Business Functionality

- Creates one or more categories in your default subline using an XML string.

Inputs

- None

Outputs

- Returns a List of ESI_Category.

Global Items – GetCategoryXML

Business Functionality

- Gets an XML string of all the categories in a particular LOB.

Inputs

- ESI_Category object

Outputs

- Return an XML string.

Global Items – GetInputsXML

Business Functionality

- Gets an XML string of all the inputs of a particular LOB.

Inputs

- LineID

Outputs

- Returns an XML string that includes all the inputs of that LOB.

Program Items – CopyProgramVersion

Business Functionality

- Copies an existing Insbridge program version to a new specified program version with the option to copy the definition only or copy the definition and all data.
 - **Copy Definitions Only:** This option will copy all elements of the program with the exception of the data contained in mapped variables.
 - **Copy Definitions & All Data:** This option will copy all elements of the program, including the data contained in mapped variables.

Inputs

- New Program Version
- Source Program Version
- Copy Option

Outputs

- Returns an ESI_ProgramVersion object.

Program Items – CreateFolderGroup

Business Functionality

- Creates a new folder in a particular LOB.

Inputs

- ESI_FolderGroup object

Outputs

- Returns an ESI_FolderGroup object.

Program Items – CreateLine

Business Functionality

- Creates a new line of business. The line of business, if activated, will be displayed on the RateManager navigation bar immediately. In order for any users to use the new line, groups must have access priviledges granted.

Inputs

- ESI_LOB object

Outputs

- Returns the ID of the newly created Line if succeeded or -1 if failed.

Program Items – CreateProgram

Business Functionality

- Creates a new Insbridge Program in the folder of your choosing.

Inputs

- ESI_Program object

Outputs

- ESI_Program object.

NOTE

For Version 3.12, the public string NOTE will no longer be available due to a schema change. That attribute must be left blank.

Program Items – CreateProgramVersion

Business Functionality

- Creates a new version of an existing program.

Inputs

- ESI_ProgramVersion object

Outputs

- Returns an ESI_ProgramVersion object.

Program Items – DeleteFolderGroup

Business Functionality

- Deletes an existing program folder. Make absolutely sure that the programs for the folder are no longer needed. Deleting a folder deletes all programs under that folder only. Subfolders and any programs in the subfolders will not be deleted but will now be unlinked.

Inputs

- ESI_FolderGroup object

Outputs

- Returns True if succeeded or False if failed.

Program Items – DeleteProgram

Business Functionality

- Deletes an existing Insbridge Program. When a program is deleted, all data (variables, algorithms, sequencing, result groups and, if an auto program, driver assignment scenarios) and versions are deleted. Make sure this is the action you want to take. Locked programs cannot be deleted and will return a fail.

Inputs

- o ESI_Program object

Outputs

- o Returns a pass/fail value. Pass = true and Fail = false.

Program Items – GetAvailableFolderGroups

Business Functionality

- o Gets a list of Folders of a particular LOB.

Inputs

- o LineID

Outputs

- o Returns a list of ESI_FolderGroup objects.

Program Items – GetAvailableFolderGroupsXML

Business Functionality

- o Gets an XML string of available Folders of a particular LOB.

Inputs

- o Line ID

Outputs

- o Returns an XML string of available Folders of a specific LOB.

Program Items – UpdateFolderGroup

Business Functionality

- o Updates the name or parent of an existing program folder. When you change the parent of any folder, the folders underneath will be changed as well.

Inputs

- o ESI_FolderGroup object

Outputs

- o Returns the updated Folder ID if succeeded or -1 if failed.

Program Items – UpdateLOB

Business Functionality

- o Updates an existing line of business: name, date mask or activation status.

Inputs

- o ESI_LOB object

Outputs

- o Returns "True" if succeeded or "False" if failed.

Security Items – CreateUser

Business Functionality

- Creates a new User.

Inputs

- ESI_User object

Outputs

- Returns True if succeeded or False if failed.

Security Items – GetAvailableUserGroups

Business Functionality

- Gets all the available user groups.

Inputs

- No inputs

Outputs

- Returns a list of ESI_UserGroup objects.

Security Items – UpdateUser

Business Functionality

- Updates an existing User. Password Reset must be done inside RM.

Inputs

- ESI_User object

Outputs

- Returns True if succeeded or False if failed.

SRP Items – CreateSRP

Business Functionality

- Creates a SoftRater Package (SRP) in a particular environment.
- ESI created SRP will have an identifier “API” in the filename and will show an icon on IBFA SRP list.

Inputs

- ESI_Program object
- Program Version
- ESI_Environment object

Outputs

- Returns the newly created ESI_SRP object.

Framework Administrator Interface

Class Definition

```
public class FrameworkAdministrator
{
    public const string gAppID = "FrameworkAdministrator";

    public FrameworkAdministrator(
        string ApplicationTokenKey,
        int SubscriberID,
        string TargetInstance)
```

SRP Items – CopySRP

Business Functionality

- Copies an SRP from the current environment to the selected environment. To determine the current environment, run the GetSRPList. This will return a list of ESI_SRP's. Every ESI_SRP has the environment and other information. CopySRP will get the current environment from the ESI_SRP object that you pass in.

Inputs

- The environment the SRP to be copied to.
- The SRP to be copied.

Outputs

- True if succeeded or False if failed.

SRP Items – DeleteSRP

Business Functionality

- Deletes an SRP from disk. To determine (or control) the environment that the SRP is deleted from, run the GetSRPList to get the ESI_SRP's. Every ESI_SRP has the environment and other information. This will tell you which environment the SRP is currently in.
- Once deleted, this package cannot be reloaded.

Inputs

- The SRP to be deleted

Outputs

- True if succeeded or False if failed

SRP Items – ExportSRP

Business Functionality

- Exports an SRP from an IBFA environment and converts it to bytes.
- You can use the bytes directly or save them to a physical file by using SaveFile() method.
- To use the SRP bytes, use a straight binary read into a byte array.

```
FileStream fs = File.OpenRead(@"C:\TEMP\abc.srp");
byte[] srpBytes = new byte[fs.Length];
fs.Read(srpBytes, 0, srpBytes.Length);
```

Inputs

- The environment the SRP is to be exported
- The SRP to be exported

Outputs

- The bytes of the SRP

SRP Items – GetSRPList, ESI Created Only

Business Functionality

- Gets a list of all ESI created SRPs in a particular environment.

Inputs

- The environment from where the SRPs are to be retrieved.

Outputs

- A list of ESI_SRP objects.

SRP Items – GetSRPList, Selected SRP Type

Business Functionality

- Gets a list of SRPs of certain type in a particular environment.

Inputs

- The environment from where the SRPs are to be retrieved.
- SRP type: 0 = all SRPs; 1 = ESI created SRPs.

Outputs

- A list of ESI_SRP objects.

SRP Items – ImportSRP

Business Functionality

- Imports SRP bytes into an IBFA environment.

Inputs

- The environment the SRP is to be imported into
- SRP bytes to be imported

Outputs

- True if succeeded or False if failed

SRP Items – LoadSRP

Business Functionality

- Loads an SRP into an IBFA environment so that the rating algorithms can be executed against it.
- Loading a package takes the logic stored in the package and places it in the database so it can be executed.
- Packages should be able to be loaded within an ESI Environment.

Inputs

- The environment the SRP is to be loaded in.
- The SRP to be loaded.

Outputs

- True if succeeded or False if failed.

SRP Items – MoveSRP

Business Functionality

- Given an ESI_SRP object as well as an ESI Environment, the API moves the SRP from the current environment to the passed-in environment.

Inputs

- The environment the SRP is to be moved to.
- The SRP to be moved.

Outputs

- True if succeeded or False if failed.

SRP Items – SaveFile

Business Functionality

- Saves the bytes you pass in to a physical file.
- It gives ASP.NET Machine Account ("ASPNET") full control of that file.

Inputs

- The bytes to be saved
- The location and name the bytes are to be saved

Outputs

- True if succeeded or False if failed

SRP Items – UnloadSRP

Business Functionality

- Unloads an SRP from a particular Environment. To determine (or control) the environment that the SRP is unloaded from, run the GetSRPList to get the ESI_SRP's. Every ESI_SRP has the environment and other information. This will tell you which environment the SRP is currently in.
- The package itself remains on disk until deleted. It is not necessary to unload a package before loading another package for the same program and version.
- If a package is loaded for a program and version that already has a package loaded, the old package will be unloaded before the new package is loaded.

Inputs

- The SRP to be unloaded.

Outputs

- True if succeed or False if failed.

Exception Errors

ESI_ExceptionLevel

```
public enum ESI_ExceptionLevel
{
    Critical = 1,
    Warning = 2,
    Information = 3
}
```

ESI_Exception

```
public class ESI_Exception : Exception
{
    public ESI_Exception Level;
    public string Message;
    public string Stack;
}
```

An ESI_Exception will be thrown if any error happens during the API function call.

An error message will be stored in ESI_Exception.Message and the stack trace information will be stored in ESI_Exception.Stack.

There's an ESI_Exception Level which gives you one of three levels:

- **Critical** – Any error that is not being handled by RateManager or IBFA (such as a NullReferenceException) will be Critical level.
- **Warning** – Any error that is caught by RateManager or IBFA (such as missing parameter, wrong parameter type, etc) will be Warning level.
- **Information** – No error has occurred but some information needs to be returned.

ESI User Setup and Authentication

There are two types of authentication in ESI RateManager Interface:

- **Regular login** – users will send down a valid RateManager username and ESI will log the user in with that.
- **Network login** – ESI will get your windows credentials and log you in with the same username and password as the user you login to windows

You will need to set up a network user account if you want to use windows integrated login in RateManager.

Adding a User

New users can be added from the User Management screen. All new users will be assigned the default password, password. New users should log in as soon as possible and change their password.

To Add a New User

1. In RateManager, navigate to Administration>Security>**User Management**.

NAME	GROUP	COMPANY	CONTACT INFO	LAST LOGIN
Company Administrator		Sample Company		Oct 25 2006 11:54AM
Joe Tester	Testers	Sample Company	joe.tester@yourcompany.com	Oct 31 2006 2:24PM
Rate Loader	RateLoaders	Sample Company	rate.loader@yourcompany.com	Oct 25 2006 9:22AM

Figure 1 Adding a New User

2. Click to open the Add User screen.

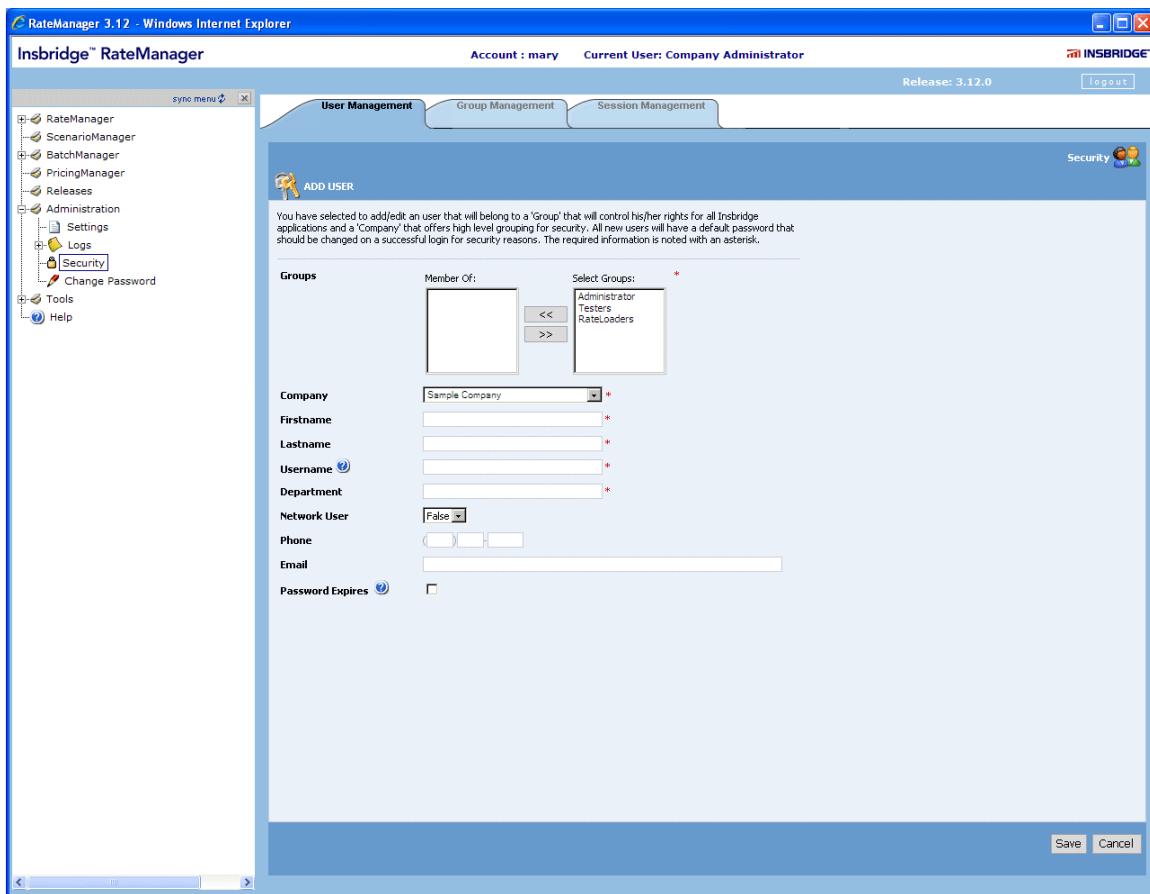


Figure 2 User Management Screen

3. Select the **Group(s)** the new user will belong to by selecting a group or groups from the Select Groups list and then clicking the button.
4. Select the **Company** the user will belong to from the drop down listing.
5. Enter a **First** and **Last** name for the user in the appropriate text boxes.
6. Enter a **Username** for the new user. The username must be at least six, but fewer than twelve, alphanumeric characters and can include an underscore (_) or period (.).
7. Enter a **Department** for the user.
8. Select whether the new user is a **Network User** by selecting **True** or **False** from the drop down. If you select **True**, the user's credentials (username and password) will be validated using Windows Authentication Tokens. The username must match the network user ID. If you select **False**, the user must enter a valid username and password via the RateManager login screen.
9. Optionally, enter a **Phone Number** and **Email Address** for the new user.
10. If you wish for the user's password to expire, click the box next to **Password Expires**.

11. When you are finished, click **Save**. The user will be added to the system and the user list will be updated. The new user can now log in using the username you assigned them and the default password, **password**.
12. The user should change their password the first time they log in. See **Changing Your Password** in the RateManager User Guide for more information.

ESI System Configuration

To use ESI's IBFA Framework functionality, you need to send down the API key when you do the ESI API call.

When IBFA is installed, a default API key will be generated and saved in IBFA. You can find it in **IBFA > Insbridge > Security > External API Access**. You can disable ESI's IBFA functionality by setting it to "Disabled". For security purpose, you may want to change the key once in a while. To change the key, click on "Generate Key" and then click on "Update". Every key generated will be unique.

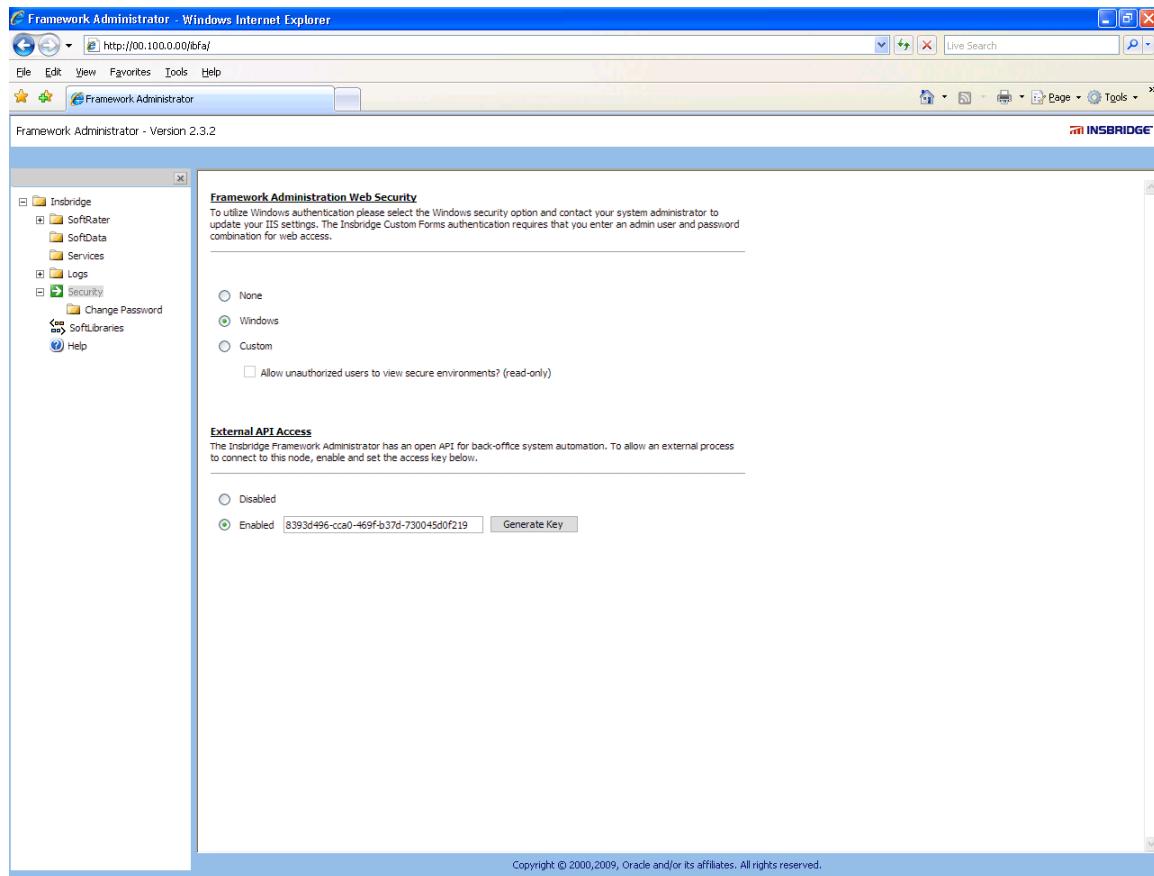


Figure 3 Allowing External API Access

Support

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

Address any additional inquiries to:

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

Worldwide Inquiries:
Phone: +1.650.506.7000
Fax: +1.650.506.7200
oracle.com

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