Oracle® Health Sciences Empirica Topics

Reporting and Oracle Business Intelligence Configuration
Guide

Release 8.0

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Oracle Health Sciences Empirica Topics Reporting and Oracle Business Intelligence Configuration Guide, Release 8.0

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Preface

The Empirica Signal application provides the ability to generate reports on topic content using Oracle® Business Intelligence Enterprise Edition (OBIEE). This guide provides system requirements and configuration instructions to integrate OBIEE with the Empirica Signal application.

The preface includes the following sections:

- Audience
- Documentation accessibility
- Related documents
- Conventions

Audience

This document is intended for database administrators, Empirica Signal administrators, and IT administrators.

This guide assumes that you have an understanding of operating system and database concepts, and have experience using the supporting software as described in the Installation requirements chapter. This guide assumes you have both the Empirica Signal software and OBIEE already installed.

Documentation accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

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.

Related documents

For more information, see the following documents in the Oracle Health Sciences Empirica Signal Release 8.0 documentation set:

- *Oracle Health Sciences Empirica Signal and Topics User Guide*
- *Oracle Health Sciences Empirica Signal Release Notes*

- *Oracle Health Sciences Empirica Signal Known Issues*

- *Oracle Health Sciences Empirica Signal Installation Guide*

- *Oracle Health Sciences Empirica Signal Secure Configuration Guide*

- *Oracle Health Sciences Empirica Signal Third Party Licenses and Notices*

- *Oracle Health Sciences Empirica Topics API Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
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.

1

Installation requirements

To use OBIEE to report on the Empirica Signal and Topics application, you must meet the requirements specified in this chapter.

This chapter includes the following sections:

- Database requirements
- Oracle Business Intelligence requirements
- Empirica Signal requirements

Database requirements

Obtain the following information:

- SYSTEM password for the Oracle database instance used by the Empirica Signal application.
- Name of the Empirica Signal application database account and tablespace.
- TNS name used for database access from Empirica Signal and OBIEE.

Oracle Business Intelligence requirements

- Oracle Business Intelligence URL.
- Oracle Business Intelligence administrator username and password.
- Oracle Fusion Middleware Enterprise Manager URL.
- Oracle Fusion Middleware Enterprise Manager administrator username and password.
- Oracle WebLogic Server Administrator Console URL.
- Oracle WebLogic Server Administrator Console administrator username and password.
- Server and file system access to the OBIEE and WebLogic installation.

  These software tools and installation instructions are available as downloads from http://www.oracle.com/technetwork.

Empirica Signal requirements

- Empirica Signal release 8.0 or higher, installed and configured.
- Empirica product ZIP file from the Oracle Software Delivery Cloud.

- File `OBIEE.zip` from the Oracle Software Delivery Cloud.

- Empirica Signal URL.

- Empirica Signal administrator username and password.

- Empirica Signal Topics feature, installed and configured.

- Name of the topic workflow account.

- Topic Workflow Configuration ID for which OBIEE can generate reports.

- Server and file system access to the Empirica Signal application server.

To create the topic workflow account during the Empirica Signal installation, see the *Installation Guide*.

> **Note:** Before you configure Oracle Business Intelligence for Topics reporting, you must ensure that you have the installation media, such as the product ZIP file that corresponds to the release of the Empirica Signal software that you installed. The procedures for configuring Oracle Business Intelligence require files that are provided on the installation media.

2

Prepare the Empirica Signal data account

In this step, you create an OBIEE database account for the Empirica Signal and Topics application, and then populate the database account with views that point to data items in your chosen topic workflow configuration for reporting.

This chapter includes the following sections:

- Creating the OBIEE Topics database account
- Creating the OBIEE Topics views

Creating the OBIEE Topics database account

1. Extract the contents of the `Database.zip` file on your Empirica Signal application server.

2. Open the `create_topics_user_obiee.sql` file in a text editor.

3. Verify that the following properties are set to the appropriate values for your environment, and edit the values if necessary:

   `DEFINE TOPIC_WORKFLOW = '<topic workflow account>';`

   `DEFINE SIGNAL = '<Signal account>';`

   `DEFINE TABLESPACE = '<tablespace>';`

4. Open a Command Prompt window (for example, PuTTY) and execute the `create_topics_user_obiee.sql` script as the Oracle system user:

   > **Note:** The database may reside on a different server than the Signal server.

   `$sqlplus system@<TNS name for database connection> @create_topics_user_obiee.sql`

5. When prompted, type the Oracle system account password.

   A list of topic workflow configuration names and IDs appears.

6. When prompted, type the target topic workflow configuration ID.

   The script creates the `OBIEE_<topic workflow account>_<topic workflow ID>` database account.

7. When prompted, choose and type a password for the `OBIEE_<topic workflow account>_<topic workflow ID>` database account.

   Record this password for use in the next section and later.

The script completes, and creates the `create_topics_user_obiee.log` file.

Creating the OBIEE Topics views

1. On the Empirica Signal application server, locate the `populate_obiee_topics.sql` file in the contents extracted from the `Database.zip` file.

2. Open the `populate_obiee_topics.sql` file in a text editor.

3. Verify that the following properties are set to the appropriate values for your environment, editing the values as necessary:

   `DEFINE TOPIC_WORKFLOW = '<topic workflow account>';`

   `DEFINE SIGNAL = '<Signal account>';`

4. Open a command prompt window and execute the `populate_obiee_topics.sql` script as the database user created in Creating the OBIEE Topics database account:

   `$sqlplus OBIEE_<topic workflow account>_<topic workflow ID>@<TNS name for database connection> @populate_obiee_topics.sql`

5. When prompted, type the password for the `OBIEE_<topic workflow account>_<topic workflow ID>` database account that you created in Creating the OBIEE Topics database account.

6. When prompted, type the same topic workflow configuration ID that you entered in step 6 in **Creating the OBIEE Topics database account**.

   The script completes, and creates the `populate_obiee_topics.log` file.

3

Configure OBIEE authentication

In this step, you install and configure the authentication plugin that allows you to access Topics reports in OBIEE using your Empirica Signal password.

This chapter includes the following sections:

- Configuring the credential store
- Copying and extracting the authentication files
- Creating a new authentication provider
- Verifying attribute information

Configuring the credential store

1. Log into the Oracle Fusion Middleware Enterprise Manager using the WebLogic administrator username and password. You can access the server at:

   http://*<server name>*:*<port>*/em

2. Expand **WebLogic Domain** in the left-hand pane.

3. Click the name of your Empirica BI domain (for example, **empirica_bi**), and select `WebLogic Domain/Security/Credentials` from the drop-down menu, under your domain name in the top left of the center pane.

4. Click **Create Map** and type `oracle.hsgbu.empirica` as Map Name.

5. Click **OK**.

6. Select **oracle.hsgbu.empirica** in the Credential column, and click **Create Key**.

7. Create the following keys:

   - **DatabaseCredentials**—Use the same user name and password as the corresponding **DatabaseCredentials** key on the Signal instance

   - **AuthenticatorCredentials**—Use the WebLogic administrator user name and password from the current OBIEE instance.

8. Select **WebLogic Domain > Security > System Policies** from the drop-down menu under your domain name in the top left of the center pane.

9. From the **Type** drop-down list, select **Principal**.

10. Click **Create**.

11. Under Permissions, click **Add**. Select the **Select here to enter details for a new permission** check box, and type the following values:

Permission Class:
`oracle.security.jps.service.credstore.CredentialAccessPermission`

Resource Name: `context=SYSTEM,mapName=oracle.hsgbu.empirica,keyName=*`

Permission Actions: `read`

12. Click **OK**.

13. Set the drop-down selector **Grant to** to **Principal**.

14. Under Grantee, do the following:

    a. Click **Add.**

    b. Set the **Type** drop-down list value to **Group**.

    c. Set the **Principal Name** drop-down list value to **Starts With**.

    d. Type **BI** in the text field, and click the blue Search roles button.

    e. Select **BIAdministrators**.

    f. Click **OK**.

15. Click **OK**.

16. Set the Type to Principal and search for entries starting with BI. Select **BIAdministrators**, and click **Create Like**.

17. Under Grantee, do the following:

    a. Click **Add**.

    b. Set the **Type** drop-down list value to **Group**.

    c. Set the **Principal Name** drop-down list value to **Starts With**.

    d. Type **BI** in the text field, and click the blue Search roles button.

    e. Select **BIAuthors**.

    f. Click **OK**.

18. Click **OK**.

19. Select BIAdministrators, and click Create Like.

20. Under Grantee, do the following:

    a. Click **Add**.

    b. Set the **Type** drop-down list value to **Group**.

    c. Set the **Principal Name** drop-down list value to **Starts With**.

    d. Type **BI** in the text field, and click **Search roles**.

    e. Select **BIConsumers**.

    f. Click **OK**.

    g. Click **OK** again.

21. The following provides access to the **oracle.hsgbu.empirica** Credential Store map for the patch directory:

    a. Set the Type to **Principal** and search for entries starting with BI. Select **BIAdministrators**, and click **Create Like**.

    b. Change the drop-down selector **Grant to** from **Principal** to **Codebase**.

     c. Enter the following value for **Codebase**:

     `file:${wls.home}/../../patch_wls1036/-`

     d. Click **OK**.

     e. Click **OK** again.

22. Logout.

Copying and extracting the authentication files

1. If you have not already done so, unzip the `OBIEE.zip` file. Open the `OBIEE\empiricaprovider\obiee_auth.properties` file and verify the information:

     a. Navigate to the `OBIEE\empiricaprovider` directory.

     b. Open the `obiee_auth.properties` file.

     c. Verify that the following properties are set to the appropriate values for your OBIEE WebLogic server, editing the default values if necessary:

     `HOSTNAME=localhost`

     `PORT=7001`

2. Create the following folder on the OBIEE server:

`/u01/app/oracle/empiricaprovider`

3. Copy the following file from local folder `OBIEE\empiricaprovider` to the `/u01/app/oracle/empiricaprovider` folder on the OBIEE server:

- `obiee_auth.properties`
- `ESAPI.properties`
- `messages.properties`

Copy the following files from the current Signal deployment on Linux. The file should be located in the `stage/Signal_Install/Signal/Web_root/WEB-INF/classes` sub-directory:

- `webvdme.properties`

4. Navigate to local directory `OBIEE/mbeans` and copy the following files to the *<WebLogic server>*`/server/lib/mbeantypes` folder on the OBIEE server:

- `empirica`*<version>*`.jar`
- `EmpiricaCore`*<version>*`.jar`
- `empiricaprovider`*<version>*`.jar`
- `esapi-2.0.1.jar`
- `log4j-1.2.16.jar`
- `secure-coding`*<version>*`.jar`

5. Add the `empiricaprovider` folder to the Java CLASSPATH in the Weblogic startup script:

     a. Open a Command Prompt window (for example, PuTTY) on the OBIEE server and navigate to `/u01/app/oracle/product/Middleware/user_projects/domains/empirica_bi/bin` (substitute your domain's name for **empirica_bi** if it is different).

      b. Open `startWebLogic.sh` in a text editor.

      c. After the `"fi"` at line 127 (it ends the MEDREC_WEBLOGIC_CLASSPATH if-block), and before the following `"echo"` line, add the following two lines (keeping the double-quotes):

```
CLASSPATH="${CLASSPATH}${CLASSPATHSEP}/u01/app/oracle/empiricaprovider"
```

```
PATH="${PATH}${PATHSEP}/u01/app/oracle/empiricaprovider"
```

      d. Save the changes and close the file

6. Stop and restart the WebLogic administration server. See Appendix A, Starting and Stopping OBIEE for more information.

Creating a new authentication provider

1. Log into Oracle WebLogic Server Administration Console on the OBIEE server using your WebLogic administrator username and password.

You can access the server at `http://<server>:<port>/console`.

2. In the Domain Structure pane, click **Security Realms**.

The Summary of Security Realms page appears.

3. In the Realms table, click **myrealm**.

The Settings for myrealm page appears.

4. In the Change Center pane, click **Lock & Edit**.

5. Click the **Providers** tab, and then click the **Authentication** subtab.

6. If SSO is configured, perform the following steps to install the **OAMIdentityAsserter**:

      a. Click **New**.

      b. Specify the following:

         – Name: Type **OAMIdentityAsserter**.

         – Type: Select **OAMIdentityAsserter**.

      c. Click **OK**.

      d. Click the **OAMIdentityAsserter** link.

         – In the Common tab, make sure that **OAM_REMOTE_USER** is selected as one of the Active Types. Leave the Control Flag as **OPTIONAL**.

         – In the Provider Specific tab, set:
SSOHeader Name: **SSO_USER_LOGIN_ID**

         – Click **Save**.

      e. On the Providers page, click **Reorder**.

      f. Move the **OAMIdentityAsserter** to the top of the list of authentication providers.

      g. Click **OK**.

7. Click **New**.

The Create a New Authentication Provider page appears.

8. Specify the following:

   - **Name:** Type **EmpiricaAuthenticationProvider**.

   - **Type:** Select **EmpiricaAuthenticator**.

9. Click **OK**.

   The authentication provider is created.

10. On the Providers page, click **Reorder**.

    If the **OAMIdentityAsserter** is installed, move the **EmpiricaAuthenticationProvider** immediately after the **OAMIdentityAsserter** and before the **DefaultAuthenticator**.

    If the **OAMIdentityAsserter** is not installed, move the **EmpiricaAuthenticationProvider** to the top of the list of authentication providers.

11. Click **OK**

12. Click the **EmpiricaAuthenticationProvider** link. Change the Control Flag to **REQUISITE**.

13. Click **Save**.

14. Click the **DefaultAuthenticator** link. Change the Control Flag to **SUFFICIENT** for non-SSO systems. Change the Control Flag to **REQUIRED** for SSO systems.

15. Click **Save**.

16. Click **Activate Changes** in the Change Center.

17. If the **OAMIdentityAsserter** has been installed, the following steps must be taken:

    a. Save changes and shutdown all the servers in the domain.

    b. Take a backup of the `$DOMAIN_HOME/bin/setDomainEnv.sh` file and make the following changes to `setDomainEnv.sh` file.

       Add the following lines just before JAVA_PROPERTIES are defined:

       ```
       EXTRA_JAVA_PROPERTIES="-Dsso.filter.ssotoken=SSO_USER_LOGIN_ID
       ${EXTRA_JAVA_PROPERTIES}"
       ```

       ```
       export EXTRA_JAVA_PROPERTIES
       ```

18. Stop and restart the WebLogic administration server. See Appendix A, Starting and Stopping OBIEE for more information.

    Note:

    - Once the Empirica Authenticator is configured, you can no longer log into OBIEE using a non-Signal account.

    - The SSO properties for OBIEE's copy of `webvdme.properties` must agree with the installation. If OBIEE is configured for SSO, then the SSO properties must be set in `webvdme.properties`. Likewise, if OBIEE is not configured for SSO, then the SSO properties must not be set in `webvdme.properties`.

Verifying attribute information

1. Log into Oracle Fusion Middleware Enterprise Manager using your WebLogic administrator username and password.

You can access Oracle Fusion Middleware Enterprise Manager at `http://<server>:<port>/em.`

2. Expand the **WebLogic Domain** folder.

3. Right-click the domain name, and select **System MBean Browser**.

   The System MBean Browser appears.

4. In the System MBean Browser pane, expand the **Configuration Mbeans** folder.

5. Expand the **Security** folder.

6. Click the **myrealmEmpiricaAuthenticationProvider** mbean.

   The attributes appear.

7. On the **Attributes** tab, verify that the Value column for the `EmpiricaSignalApplicationRoot` attribute contains the `/u01/app/oracle/empiricaprovider` folder that you created in step 2 in `Copying and extracting the authentication files`.

8. Edit the value if necessary, and click **Apply**.

9. Log out.

10. Log into Oracle WebLogic Server Administration Console using your WebLogic administrator username and password.

    You can access the server at `http://<server>:<port>/console`.

11. To make your OBIEE usernames case-insensitive to ensure successful logins from the Empirica Signal application, do the following:

    a. In the Domain Structure pane, click the domain name. For example, **empirica_bi**.

       The Settings for *<domain name>* page appears.

    b. Click the **Security** tab, and click the **General** tab if it is not already selected.

    c. Click **Advanced** at the bottom of the page.

       Advanced options appear.

    d. Select the **Principal Equals Case Insensitive** check box.

       If the check box is not editable, click **Lock and Edit.**

    e. Click **Save**.

       Your changes are saved.

       For more information, see the following documentation:

       `http://docs.oracle.com/cd/E21764_01/web.1111/e13707/domain.htm`

12. In the Change Center pane, click **Activate Changes**.

    Your changes are activated.

13. Log out.

14. Stop and restart the WebLogic administration server. See Appendix A, Starting and Stopping OBIEE for more information.

4

Configure the Empirica Signal application

In this step, you enable OBIEE Topics reporting, assign permissions, and add the OBIEE URL to the `webvdme.properties` file.

This chapter includes the following sections:

- Modifying the `webvdme.properties` file
- Enabling the OBIEE site setting
- Assigning permissions

Modifying the `webvdme.properties` file

1. Log into the Empirica Signal application server.

2. Navigate to the `/u01/stage/Signal_Install/Signal/WEB-INF/classes` directory.

3. Open the `webvdme.properties` file.

4. Add the following line, replacing *<server>* and *<port>* with the appropriate values for your OBIEE instance:

   reportingURL=http://*<server>*:*<port>*/analytics

   > **Note:** The port number can change depending on whether SSO is being used.

5. Stop, update, and restart the Empirica Signal Weblogic application server using the WebLogic console.

Enabling the OBIEE site setting

1. Log into the Empirica Signal application as an administrator.

2. Click **Settings**.

   The Settings page appears.

3. Click **Set Site Options**.

   The Site Options page appears.

4. Select the **Enable OBI EE Reporting** check box.

5. Click **Save**.

   Your changes are saved.

6. Log out from the Empirica Signal application.

Assigning permissions

You must assign the appropriate OBIEE permissions to users who need access to Topics reports. The permissions provided in the Empirica Signal application correspond to the associated roles (BI Consumer, BI Author, BI Administrator) in OBIEE. You should assign the permissions to Empirica Signal users according to their roles in OBIEE.

Users must have at least the BI Consumer permission to view Topics reports in OBIEE.

1. Log into the Empirica Signal application as an administrator.

2. Click **Settings**.

   The Settings page appears.

3. Click **Edit Users**.

   The Users page appears.

4. Click the Action menu icon next to a user, and select **Edit**.

   The Edit User page appears.

5. Click **Assign Permissions**.

   The Permissions for User page appears.

6. In the OBIEE Reporting section, select the appropriate BI permissions.

7. Click **Save**.

   Your changes are saved.

5

Install, configure, and test reports

In this step, you configure OBIEE to point to the topic workflow data, and then upload predefined sample reports. Further, you test the predefined Topics reports in Oracle BI EE to ensure the configuration was successful.

This chapter includes the following sections:

- Updating the RPD connection pool
- Uploading the RPD file
- Disabling the Presentation Services cache
- Deploying the web catalog file
- Testing Topics reports

Updating the RPD connection pool

1. Unzip the `OBIEE.zip` file having the OBIEE directory onto the Windows machine where the Oracle BI Developer Client Tool is installed. The client tool is included as part of the OBIEE installation at the following location (depending on your installation):

   `/u01/app/oracle/fmw/Oracle_BI1/clients/biserver/biee_client_install_x64.exe`.

   This is a self-extracting archive that installs the client tool and other utilities. The same package is downloadable from the OBIEE application itself:

   a. Log into OBIEE.

   b. Navigate to the Home page.

   c. Go to **Download BI Desktop Tools**.

   d. Select the **32-bit** or **64-bit Oracle BI Client Installer**.

2. Open the Oracle BI Developer Client Tool on Windows:

   a. Click **Start**, and select **All Programs**.

   b. Select **Oracle Business Intelligence Enterprise Edition Plus Client**, and click **Administration**.

3. From the File menu, select **Open**, and click **Offline**.

   A dialog box appears.

4. Locate and open `OBIEE\reporting\twc_repository.rpd` file.

5. Click **OK**.

6. When prompted, type the repository password.

   Oracle provides a default password of **abcd1234**.

7. From the File menu, click **Change Password**.

   The Change Repository Password dialog box appears.

8. In the Old Password field, type the default password of **abcd1234**.

9. Type and confirm a new password for the repository, and record it for later use.

10. Click **OK**.

11. In the Physical pane, expand the **TWC** node.

    The TWC subnode appears.

12. Right-click the TWC subnode, and select **Properties**.

    The Connection Pool - TWC dialog box appears.

13. Select the **General** tab if it is not already selected.

14. Edit the following:

    a. In the **Data source name** field, specify the entire connection string for your Empirica Signal Topics database server. Use the corresponding tnsnames entry for the database server (minus the leading alias names) as a starting point, and remove any new lines or returns.

       If you choose to enter the net service name as defined in the tnsnames.ora file, see the associated documentation at:

       http://docs.oracle.com/cd/E17904_01/bi.1111/e10540/deploy_
       rpd.htm#CHDJDIJI

    b. In the **User name** and **Password** fields, type the username and password of the OBIEE database account that you created in **Creating the OBIEE Topics database account**.

    c. Click **OK**.

15. When prompted, confirm the password, and click **OK**.

    The Connection Pool - TWC dialog box closes.

16. From the Tools menu, click **Update all row counts** to test the connection to your BI Server.

    ■ If successful, row counts are available on the Physical pane (by mouse-over of the components).

    ■ If unsuccessful, an error occurs. To troubleshoot, check your database settings.

17. From the File menu, click **Save**.

18. When prompted to check for global consistency, click **No**.

    The Oracle BI Developer Client Tool saves the changes.

19. From the File menu, click **Close**.

20. From the File menu, click **Exit**.

    The Oracle BI Developer Client Tool closes.

Uploading the RPD file

1. Log into Oracle Fusion Middleware Enterprise Manager on the OBIEE server using the WebLogic administrator username and password.

   You can access the server at `http://<server name>:<port>/em`.

2. In the left pane, expand the **Business Intelligence** folder, and click **coreapplication**.

   The coreapplication page appears.

3. Click the **Deployment** tab, and then click the **Repository** subtab.

4. Click **Lock and Edit Configuration** above the Capacity Management tab.

5. Click **Close**.

   A confirmation message appears. Click **Close** in the confirmation message dialog box.

6. In the Upload BI Server Repository section, click **Browse** next to the **Repository File** field.

   The Choose File to Upload dialog box appears.

7. Navigate to the **OBIEE\reporting** folder on the Windows machine.

8. Select the `twc_repository.rpd` file edited in the previous section, and click **Open**.

   The Choose File to Upload dialog box closes.

9. Type and confirm the repository password in the **Repository Password** field and the **Confirm Password** field using the password that you chose in step 9 in Updating the RPD connection pool.

10. In the upper-right corner of the BI Server Repository section, click **Apply**.

11. Click **Activate Changes** above the Capacity Management tab.

    A confirmation message appears.

12. Click **Close**.

13. Restart Oracle Fusion Middleware:

    a. Click the **Overview** tab.

    b. In the System Shutdown & Startup section, click **Restart**.

       A confirmation message appears.

    c. Click **Yes**.

14. Log out.

Disabling the Presentation Services cache

The values in an OBIEE topics report are cached due to performance considerations. An OBIEE user viewing topics reports may not be seeing the most recent data from the Empirica Signal application. By default, OBIEE caches report values for a minimum of 10 minutes and a maximum of 60 minutes depending on the system load. The following configuration change disables the OBIEE Presentation Services cache:

1. Edit the `instanceconfig.xml` file in the directory *<MW_HOME>*/*<ORACLE_ INSTANCE>*/config/OracleBIPresentationServicesComponent/coreapplicatio n_obips1.

Depending on your OBIEE installation, *<MW_HOME>* might be similar to `/u01/app/product/oracle/fmw` and *<ORACLE_INSTANCE>* might be similar to `instances/instance1`.

2. Add the following lines to the `instanceconfig.xml` file immediately after the *<ServerInstance>* tag:

```
<Cache>
  <Query>
    <MaxExpireMinutes>-1</MaxExpireMinutes>
    <MinExpireMinutes>-1</MinExpireMinutes>
    <MinUserExpireMinutes>-1</MinUserExpireMinutes>
  </Query>
</Cache>
```

3. Disable the query cache:

   a. Log into the Fusion Middleware Enterprise Manager using the WebLogic administrator username and password.

   b. Navigate to Business Intelligence > Core Application.

   c. Click the Capacity Management tab followed by the Performance tab.

   d. Click **Lock** and **Edit Configuration**.

   e. Clear the **Cache Enabled** check box.

   f. Click **Apply**.

   g. Click **Activate Changes**.

   h. Click the **Restart to apply recent changes** link at the top of the page.

   i. Click **Restart**.

   j. Click **Yes**.

Deploying the web catalog file

1. Log into OBIEE using a Signal superuser username and password.

   - If OBIEE is not configured for SSO, use a Signal superuser account which doesn't have SSO enabled.

   - If OBIEE is configured for SSO, use a Signal superuser account which has SSO enabled.

   You can access OBIEE at `http://<server name>:<port>/analytics`.

2. Under the **Search** field at the top of your screen, click **Catalog**.

   The **Catalog** tab appears.

3. In the top-most portion of the left pane, select **Shared Folders**.

4. In the Tasks section of the left pane, click **Unarchive**.

   The Unarchive dialog box appears.

5. Next to the **Archive file** field, click **Browse**.

   The Choose File to Upload dialog box appears.

6. Navigate to the **OBIEE\reporting** folder.

7. Select the `twc_repository.catalog` file, and click **Open**.

8. Specify the following:

```
Replace: None

ACL: Inherit
```

9. Click **OK**.

   The web catalog file is deployed.

Testing Topics reports

When you have completed all configuration steps, you should test the predefined Topics reports in OBIEE to ensure the configuration was successful.

1. Log into the Empirica Signal application.

2. Click the **Topics** tab.

   The Topics page appears.

3. Click **Report**.

   If SSO is configured, the Topics Dashboard should appear. If SSO is not configured, the OBIEE login page appears. In this case log into OBIEE using the Empirica Signal username and password.

If the Topics Dashboard does not appear, do the following to access Topics reports:

1. At the top of the page, click **Catalog**.

   The **Catalog** tab appears

2. In the Folders pane, expand **Shared Folders**.

3. Expand the **Topics** subfolder.

4. Expand **My Dashboard**, and click **Topics**.

   Topics reports appear.

5. Click **Open** next to a report to open it.

A

Starting and Stopping OBIEE

Note that in your environment, some paths and locations of files may be different because your system may have been configured differently from the examples in the following sections.

Starting OBIEE

1. Sign onto the Linux server using the non-privileged username (for example, oemora).

2. Start the node manager.

   a. `cd /u01/app/oracle/product/fmw/wlserver_10.3/server/bin`

   b. `nohup ./startNodeManager.sh &`

3. Start OHS (skip this step for non-SSO systems).

   a. `cd /u01/app/oracle/product/fmw/Oracle_WT1/instances/instance2/bin`

   b. `./opmnctl startall`

   c. Verify startup using command `./opmnctl status`

4. Start the WebLogic administration server.

   a. `cd /u01/app/oracle/product/fmw/user_projects/domains/bifoundation_domain/bin`

   b. `nohup ./startWebLogic.sh &`

5. Start OBIEE server using WebLogic Server Admin Console.

   a. Login into the WebLogic Server Admin Console using the WebLogic administrator username.

   b. In the **Domain** Structure pane on the left, expand **Environment**.

   c. Under **Environment**, select **Servers**.

   d. In the **Summary of Servers** pane, select the **Control** tab.

   e. Click the check box next to **bi_server1**, and click the **Start** button.

   f. Watch **bi_server1** until it starts (usually around 2-3 minutes).

6. Start opmnctl processes.

   a. `cd /u01/app/oracle/product/fmw/instances/instance1/bin`

   b. `./opmnctl startall`

    c. Verify startup using command `./opmnctl status`. Repeat until all processes show status of **Alive**.

    d. If any process fails to start, try command `./opmnctl restartproc`
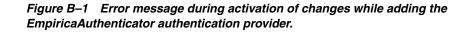
Stopping OBIEE

1. Sign onto the Linux server using the non-privileged username (for example, oemora).

2. Stop opmnctl processes.

    a. `cd /u01/app/oracle/product/fmw/instances/instance1/bin`

    b. `./opmnctl stopall`

3. Stop OBIEE server using WebLogic Server Admin Console.

    a. Login into the WebLogic Server Admin Console using the WebLogic administrator username.

    b. In the **Domain Structure** pane on the left, expand **Environment**.

    c. Under **Environment**, select **Servers**.

    d. In the **Summary of Servers** pane, select the **Control** tab.

    e. Click the check box next to **bi_server1**, and click the **Shutdown** button.

    f. Watch **bi_server1** until it shuts down (usually less than a minute).

4. Stop the WebLogic administration server.

    a. `cd /u01/app/oracle/product/fmw/user_projects/domains/bifoundation_domain/bin`

    b. `./stopWebLogic.sh`

5. Stop OHS (skip this step for non-SSO systems).

    a. `cd /u01/app/oracle/product/fmw/Oracle_WT1/instances/instance2/bin`

    b. `./opmnctl stopall`

B

Troubleshooting

This appendix describes an error you might encounter and the workaround for it.

Error during activation of changes while adding the EmpiricaAuthenticator authentication provider

Occasionally you may experience an error during the activation of changes while adding the EmpiricaAuthenticator authentication provider. The error may be similar to Figure B–1.

Figure B–1   Error message during activation of changes while adding the EmpiricaAuthenticator authentication provider.

The most direct workaround is to re-boot the Linux server hosting OBIEE, and re-start OBIEE. Linux may be rebooted by logging into the server as a privileged user and issuing the command **sudo reboot**.

C

Upgrading OBIEE

The Signal 8.0 version of the Empirica Authenticator requires 64-bit Oracle Business Intelligence Enterprise Edition release 11.1.1.7.+ with WebLogic Server 10.3.6.0.

Empirica Signal upgrades include updated versions of the OBIEE RPD and catalog files. You must upload the updated RPD file and re-deploy the web catalog file after upgrading your Empirica Signal installation. However, if you have customized your RPD file or your web catalog file, you must contact Oracle for assistance in order to avoid losing any customizations.

Upgrading OBIEE consists of the following tasks:

- Upgrading the OBIEE Topics views
- Un-installing the previous Empirica Authenticator
- Installing the new Empirica Authenticator
- Updating the RPD file and re-deploying the web catalog file

Upgrading the OBIEE Topics views

If the Signal upgrade is referencing a different topic workflow configuration than before the upgrade, follow the directions specified in Chapter 2, Prepare the Empirica Signal data account. This will create and populate a new **OBIEE_TOPIC_WORKFLOW_n** schema.

If the Signal upgrade is referencing the same topic workflow configuration as before the upgrade, the existing **OBIEE_TOPIC_WORKFLOW_n** schema may be reused. However, the views in the **OBIEE_TOPIC_WORKFLOW_n** schema will need to be refreshed.

1. Identify the topic workflow account used by the previous Signal 7.3 version of the Empirica Authenticator. This account will often have a name of the form **OBIEE_TOPIC_WORKFLOW_n**, where **n** represents the topic workflow configuration ID of the targeted topic workflow configuration. You will need the Oracle database password for this account.

2. On the Empirica Signal application server, locate the `populate_obiee_topics.sql` file in the contents extracted from the `Database.zip` file.

3. Open the `populate_obiee_topics.sql` file in a text editor.

4. Verify that the following properties are set to the appropriate values for your environment, editing the values as necessary:

   DEFINE TOPIC_WORKFLOW = '*<topic workflow account>*';

   DEFINE SIGNAL = '*<Signal account>*';

5. Open a command prompt window and execute the `populate_obiee_topics.sql` script as the database user identified in step 1.

   `sqlplus OBIEE_`*`<topic workflow account>`*`_`*`<topic workflow ID>`*`@`*`<TNS name for database connection>`* `@populate_obiee_topics.sql`

6. When prompted, type the password for the `OBIEE_`*`<topic workflow account>`*`_`*`<topic workflow ID>`*

7. When prompted, type the same topic workflow configuration ID (the n value from step 1).

   The script completes, and creates the `populate_obiee_topics.log` file.

Un-installing the previous Empirica Authenticator

To un-install the previous Empirica Authenticator (associated with Signal 7.3), perform the following tasks:

1. Stop all of the OBIEE server processes. If feasible, re-boot the server hosting OBIEE.

2. Locate the `empiricaprovider` directory on the OBIEE server. This is often located at `/u01/oracle/empiricaprovider`.

3. Make a backup copy of all of the files in the `empiricaprovider` directory. After making backup copies, delete all of the files in the `empiricaprovider` directory.

4. Locate the *`<WebLogic server>`*`/server/lib/mbeantypes` directory on the OBIEE server.

5. Delete the following files from the mbeantypes directory:

   - `ESAPI-1.4.4.jar`
   - `Log4j-1.2.16.jar`
   - `Secure-coding`*`<version>`*`.jar`
   - `Empirica`*`<version>`*`.jar`
   - `SignalTopicsCommon`*`<version>`*`.jar`
   - `Signal`*`<version>`*`.jar`
   - `Empiricaprovider`*`<version>`*`.jar`

Installing the new Empirica Authenticator

To install the new Empirica Authenticator, perform the tasks specified in Chapter 3, Configure OBIEE authentication.

Updating the RPD file and re-deploying the web catalog file

Empirica Signal upgrades include updated versions of the OBIEE RPD and catalog files. You must upload the updated RPD file and re-deploy the web catalog file after upgrading your Empirica Signal installation. However, if you have customized your RPD file or your web catalog file, you must contact Oracle for assistance in order to avoid losing any customizations.

To upgrade the RPD file and re-deploy the web catalog file, perform the tasks specified in Chapter 5, Install, configure, and test reports.