

Oracle Health Sciences Empirica Topics

Reporting and Oracle Business Intelligence Configuration Guide



Release 9.1
F31980-01

ORACLE®

Oracle Health Sciences Empirica Topics Reporting and Oracle Business Intelligence Configuration Guide, Release 9.1

F31980-01

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Preface

This preface contains the following sections:

- [Documentation accessibility](#)
- [Related resources](#)
- [Access to Oracle Support](#)
- [Additional copyright information](#)

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>.

Related resources

All documentation and other supporting materials are available on the [Oracle Help Center](#).

Access to Oracle Support

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Contact our Oracle Customer Support Services team by logging requests in one of the following locations:

- English interface of Oracle Health Sciences Customer Support Portal (<https://hsgbu.custhelp.com/>)
- Japanese interface of Oracle Health Sciences Customer Support Portal (<https://hsgbu-jp.custhelp.com/>)

You can also call our 24x7 help desk. For information, visit <http://www.oracle.com/us/support/contact/health-sciences-cloud-support/index.html> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

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1

Introduction

This document is intended to guide Oracle Business Intelligence Enterprise Edition administrators in configuring Oracle Business Intelligence with the Oracle Empirica Signal application.

2

System requirements

- [About system requirements](#)
To use Oracle Business Intelligence to report on Oracle Empirica Signal, your system must meet the Oracle Business Intelligence and Oracle Database instance requirements.
- [Database requirements](#)
The Oracle Database instance used by the Oracle Empirica Signal application has the requirements described here.
- [Oracle Business Intelligence requirements](#)
The system requirements for Oracle Business Intelligence are listed here.
- [Oracle Empirica Signal and Oracle Empirica Topics requirements](#)
The system requirements for Oracle Empirica Signal and Oracle Empirica Topics are listed here.

About system requirements

To use Oracle Business Intelligence to report on Oracle Empirica Signal, your system must meet the Oracle Business Intelligence and Oracle Database instance requirements.

Database requirements

The Oracle Database instance used by the Oracle Empirica Signal application has the requirements described here.

- Database connection information (TNS name, URL, port, service name).
- Username and password for the Oracle Empirica Signal database account and the system account.
- Name of the TOPIC_WORKFLOW database account.

Oracle Business Intelligence requirements

The system requirements for Oracle Business Intelligence are listed here.

- Oracle Business Intelligence Enterprise Edition version 12.2.1.4 with Java 8 and unlimited encryption extensions (JCE).
- Linux server name hosting Oracle Business Intelligence.
- Linux non-privileged username used for the Oracle Business Intelligence installation.
- URLs for the Oracle WebLogic Server Administration Console, Oracle Fusion Middleware, and Oracle Business Intelligence Analytics.

- `Signal-9_1_<x_x_xxx>-OBIEE.zip` file from the Oracle Empirica Signal installation.
- `webvdme.properties` file from the Oracle Empirica Signal installation.

Oracle Empirica Signal and Oracle Empirica Topics requirements

The system requirements for Oracle Empirica Signal and Oracle Empirica Topics are listed here.

- Oracle Empirica Signal release 9.1 or later, installed and configured.

 **Note:**

If the Oracle Empirica Signal application is installed and configured on a machine other than the machine where Oracle Business Intelligence is being installed or configured, copy and keep the required `webvdme.properties` file in advance.

- Oracle Empirica Topics release 9.1 or later, installed and configured.
- Name and ID of the topic workflow configuration in the Oracle Empirica Signal application.
- Server and file system access to the Oracle Empirica Signal application server.

3

Prepare the Oracle Empirica Signal database server for Oracle Business Intelligence

- [About preparing the Oracle Empirica Signal database server for Oracle Business Intelligence](#)
On the Oracle Empirica Signal database server, you create the Oracle Business Intelligence database user account and populate the account with views that point to data items in the topic workflow configuration for reporting.
- [Create the Oracle Business Intelligence database account for Oracle Empirica Topics](#)
To prepare the Oracle Empirica Signal database server for Oracle Business Intelligence, create the Oracle Business Intelligence database account for Oracle Empirica Topics.
- [Create the Oracle Business Intelligence views for Oracle Empirica Topics](#)
To prepare the Oracle Empirica Signal database server for Oracle Business Intelligence, you must create the Oracle Business Intelligence views for Oracle Empirica Topics.

About preparing the Oracle Empirica Signal database server for Oracle Business Intelligence

On the Oracle Empirica Signal database server, you create the Oracle Business Intelligence database user account and populate the account with views that point to data items in the topic workflow configuration for reporting.

Create the Oracle Business Intelligence database account for Oracle Empirica Topics

To prepare the Oracle Empirica Signal database server for Oracle Business Intelligence, create the Oracle Business Intelligence database account for Oracle Empirica Topics.

1. On the Oracle Empirica Signal application server, unzip the `Database.zip` file.
2. Using a text editor, open the `create_topics_user_obiee.sql` file.
3. Modify the following properties as needed for your environment:

```
DEFINE TOPIC_WORKFLOW = '<topic workflow account>';  
DEFINE SIGNAL = '<Signal account>';  
DEFINE TABLESPACE = '<tablespace>'
```

4. In a command prompt window, execute the `create_topics_user_obiee.sql` script as the Oracle system user:

```
$ sqlplus system@>database_server_TNS name>
@create_topics_user_obiee.sql
```

 **Note:**

The database may reside on a different server than the Oracle Empirica Signal server.

A password prompt appears.

5. Enter the password for the Oracle system account.

A list of topic workflow configuration names and IDs appears, and an ID prompt appears.

6. Enter the target topic workflow configuration ID.

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

A second password prompt appears.

7. Enter a password for the **OBIEE_<topic workflow account>_<topic workflow ID>** database user account.

8. Record the password for later use.

After the script runs, the `create_topics_user_obiee.log` file is created and can be checked for errors.

Create the Oracle Business Intelligence views for Oracle Empirica Topics

To prepare the Oracle Empirica Signal database server for Oracle Business Intelligence, you must create the Oracle Business Intelligence views for Oracle Empirica Topics.

1. On the Oracle 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. Modify the following properties as needed for your environment:

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

4. In a command prompt window, execute the `populate_obiee_topics.sql` script as the database user you created in [Create the Oracle Business Intelligence database account for Oracle Signal Topics](#), for example:

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

A password prompt appears.

5. Enter the password for the **OBIEE_<topic workflow account>_<topic workflow ID>** database account that you created in [Create the Oracle Business Intelligence database account for Oracle Signal Topics](#).

An ID prompt appears.

6. Enter the topic workflow configuration ID that you entered in [Create the Oracle Business Intelligence database account for Oracle Signal Topics](#).

After the script runs, the `populate_obiee_topics.log` file is created and can be checked for errors.

4

Configure Oracle Business Intelligence authentication

- [About configuring Oracle Business Intelligence authentication](#)
Before you start Oracle Business Intelligence configuration, gather the following information.
- [Copy Oracle Empirica Signal authenticator files to the Oracle Business Intelligence Linux server](#)
To support different security environments, configuration variables may be initialized (hard-coded) into the `initConfig.sh` script file, or prompted for (interactively) in the `configObiee.sh` script file.
- [Configure Oracle Business Intelligence](#)
The Oracle Business Intelligence configuration script stops and re-starts the Oracle Business Intelligence server several times during configuration.

About configuring Oracle Business Intelligence authentication

Before you start Oracle Business Intelligence configuration, gather the following information.

- Oracle Database password for the Oracle Empirica Signal schema.
- Password for the `Topics.rpd` file.
- Password for the RPD connection database user.

During Oracle Business Intelligence installation, replace each variable that you encounter in the instructions and record the new value as follows:

Name	Value
Linux server name	<Linux server name>
Linux non-privileged username	<Linux non-privileged username>
MIDDLEWARE_HOME	Full path to the Oracle Fusion Middleware Home, similar to <code>.../u01/app/oracle/Middleware/Oracle_Home</code>
ADMIN_USER	Oracle WebLogic Server administrator user name
ADMIN_PASS	Oracle WebLogic Server administrator password
DB_USER	Oracle Database user for the Oracle Empirica Signal schema
DB_PASS	Oracle Database user password for the Oracle Empirica Signal schema

Name	Value
SIGNAL_DB_CONNECT	Oracle Empirica Signal database TNS-style connection string, similar to <code>jdbc:oracle:thin:@//<DB host URL>:<DB port>/<DB service name></code>
RPD_CONN_USER	User name for the RPD connection database user, usually of the form <code>OBIEE_TOPICS_WORKFLOW_<ID></code>
RPD_CONN_PASS	Password for the RPD connection database user, usually of the form <code>OBIEE_TOPICS_WORKFLOW_<PASS></code>
RPD_CONN_DATASOURCE	TNS-style connection string for the RPD, similar to: <pre>(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=<DB host URL>)(PORT=<DB port>)) (CONNECT_DATA=(SERVICE_NAME=<DB service name>)))</pre>
DOMAIN_NAME	Oracle Business Intelligence domain name, such as <code>bi</code>
ADMIN_PORT	Oracle Business Intelligence admin port, such as <code>9500</code>
BI_PORT	Oracle Business Intelligence port, such as <code>9502</code>

 **Note:**

Replace any tags of the `<whatEverDir>` type with corresponding directory paths. For example, use `/what/ever/dir` instead of `<whatEverDir>`.

To access Oracle Empirica Topics reports in Oracle Business Intelligence using your Oracle Empirica Signal password, you must install and configure the authentication plug-in.

Copy Oracle Empirica Signal authenticator files to the Oracle Business Intelligence Linux server

To support different security environments, configuration variables may be initialized (hard-coded) into the `initConfig.sh` script file, or prompted for (interactively) in the `configObiee.sh` script file.

Any combination of hard-coding and interactive prompting is supported. For example, leaving password values blank in `initConfig.sh` would result in interactive prompts for the passwords in `configObiee.sh`.

1. Create temporary working folders `<tempFolder>` and `<linuxObieeDir>` on the Linux machine hosting Oracle Business Intelligence.

2. Log into the Linux server using a privileged account and switch to a non-privileged account using the following sudo command:

```
sudo su - <non-privileged account>
```

3. Unzip the `Signal-9_1_<x_x_xxx>-OBIEE.zip` into a temporary working folder `<tempFolder>`.

The `OBIEE` directory is created in the `<tempFolder>` directory.

4. Using your privileged account, issue the following command:

```
sudo chmod -R 700 <tempFolder>
```

5. From the Oracle Empirica Signal installation, copy the `webvdme.properties` file into the `<tempFolder>/OBIEE/empiricaprovider` directory.

6. If necessary, explicitly provide the `webvdme.properties` file the permission to log in directly to the non-privileged account.

 **Note:**

The SSO plugin settings in the `webvdme.properties` file must match the SSO settings used by Oracle Business Intelligence. For example, if SSO is not enabled on Oracle Business Intelligence, comment out the "sso" plugin lines in the `webvdme.properties` file.

7. If the Oracle Business Intelligence Admin port is different than the default value of 9500, edit the `<tempFolder>/OBIEE/empiricaprovider/obiee_auth.properties` file, changing "port=9500" to "port=<AdminPort>", where "<AdminPort>" is the Oracle Business Intelligence Admin port.
8. Edit the `<tempFolder>/OBIEE/config/initConfig.sh` file. Set each variable in the initialize configuration variables section and record the new value. For more information, see [About configuring Oracle Business Intelligence authentication](#). If desired, leave sensitive configuration variables such as passwords blank. Blank values will be prompted for in the `configObiee.sh` script.
9. Copy the `<tempFolder>/OBIEE` directory to the `<linuxObieeDir>` working directory on the Linux server. Record the full path to the `<linuxObieeDir>` directory.

10. Using your privileged account, issue the following command:

```
sudo chmod -R 700 <linuxObieeDir>
```

Configure Oracle Business Intelligence

The Oracle Business Intelligence configuration script stops and re-starts the Oracle Business Intelligence server several times during configuration.

Each restart takes a few minutes.

After the installation completes, the following message appears:

```
*****  
* OBIEE configuration complete *  
*****
```

1. Log into the Linux server hosting Oracle Business Intelligence using the non-privileged account.

2. Navigate to the following configuration script directory:

```
cd linuxObieeDir/config
```

3. Execute the following script:

```
./configObiee.sh
```

5

Configure the Oracle Empirica Signal application

- [About configuring the Oracle Empirica Signal application](#)
To configure the Oracle Empirica Signal application, you must enable Oracle Empirica Topics reporting for Oracle Business Intelligence, assign permissions, and add the Oracle Business Intelligence URL to the `webvdme.properties` file.
- [Modify the `webvdme.properties` file](#)
Follow these steps to modify the `webvdme.properties` file.
- [Enable the Oracle Business Intelligence site option](#)
Follow these steps to enable the Oracle Business Intelligence site option.
- [Assign user permissions for Oracle Business Intelligence](#)
You must assign the appropriate Oracle Business Intelligence permissions to users who need access to Oracle Empirica Topics reports.

About configuring the Oracle Empirica Signal application

To configure the Oracle Empirica Signal application, you must enable Oracle Empirica Topics reporting for Oracle Business Intelligence, assign permissions, and add the Oracle Business Intelligence URL to the `webvdme.properties` file.

Modify the `webvdme.properties` file

Follow these steps to modify the `webvdme.properties` file.

1. Log into the Oracle Empirica Signal application server.
2. Navigate to the `/u01/stage/Signal_Install/Signal/WEB-INF/classes` directory.
3. Using a text editor, open the `webvdme.properties` file.
4. Add the following line, replacing `<server>` and `<port>` with the appropriate values for your Oracle Business Intelligence server:

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


Note:

The port number can change depending on whether SSO is being used.

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

Enable the Oracle Business Intelligence site option

Follow these steps to enable the Oracle Business Intelligence site option.


1. Log into the Oracle Empirica Signal application as an administrator.
2. In the left navigation pane, click the **Settings** icon () .
3. From the Administrator System section, select **Set Site Options**.
4. Select the **Enable OBIEE Reporting** check box.
5. Click **Save**.
6. Log out of the Oracle Empirica Signal application.

Assign user permissions for Oracle Business Intelligence

You must assign the appropriate Oracle Business Intelligence permissions to users who need access to Oracle Empirica Topics reports.

The permissions provided in the Oracle Empirica Signal application correspond to the associated roles (BI Consumer, BI Author, BI Administrator) in Oracle Business Intelligence. You should assign the permissions to Oracle Empirica Signal users according to their roles in Oracle Business Intelligence.

Users must have at least the BI Consumer permission to view Oracle Empirica Topics reports in Oracle Business Intelligence.

1. Log into the Oracle Empirica Signal application as an administrator.
2. In the left navigation pane, click the **Settings** icon () .
3. In the **Manage Users** section, click **Edit Roles**.
4. For the user role you want to edit, click **Edit**.
5. On the Edit Roles page, in the OBIEE Reporting section, select the appropriate BI permissions check boxes.
6. Click **Save**.

If you modify permissions for an existing user role, then users currently logged in and associated with the user role are not affected by the changes during their current session. The changes take effect the next time they log into the application.

6

Start and stop Oracle WebLogic Server or Oracle Business Intelligence

- [About starting and stopping Oracle WebLogic Server or Oracle Business Intelligence](#)
Starting and stopping Oracle WebLogic Server or Oracle Business Intelligence is optional when configuring Oracle Business Intelligence.
- [Confirm installation](#)
Follow these steps to confirm the installation.
- [Start and stop Oracle WebLogic Server or Oracle Business Intelligence](#)
Because the start and stop scripts run in the foreground, you do not need to use **nohup** or **&**. The start and stop scripts must run to completion before you can continue.

About starting and stopping Oracle WebLogic Server or Oracle Business Intelligence

Starting and stopping Oracle WebLogic Server or Oracle Business Intelligence is optional when configuring Oracle Business Intelligence.

Based on your system configuration, some paths and locations from your environment may differ from the values in the examples.

Confirm installation

Follow these steps to confirm the installation.

1. Using an Oracle Empirica Signal username that has a BI or superuser privilege, log into Oracle Business Intelligence Analytics (Oracle Business Intelligence) using the following URL:

```
http://<OBIEE server name>:<BI_port>/analytics
```

```
e.g., http://<servername>:9502/analytics
```

The Oracle Business Intelligence screen appears.

2. Click the **Catalog** link at the top.
3. In the Folders section on the left, expand **Shared Folders**.
4. Click the **Topics** folder.
5. Under Analysis Reports, click the **Expand** link, then open each report, examine it, and click **OK**.

 **Note:**

Depending on the topic workflow configuration, some reports may not contain data. For a report with no data, the following message is displayed: **No Results - the specified criteria didn't result in any data.**

6. Repeat Step 5 for the My Dashboard folder.
7. Click the **Home** link at the top of the screen.
The Topics reports should appear in the Recent section.
8. Log out of Oracle Business Intelligence.

Start and stop Oracle WebLogic Server or Oracle Business Intelligence

Because the start and stop scripts run in the foreground, you do not need to use **nohup** or **&**. The start and stop scripts must run to completion before you can continue.

 **Note:**

Starting and then stopping Oracle WebLogic Server/Oracle Business Intelligence may take a few minutes.

1. Log into the Linux server hosting Oracle Business Intelligence using the non-privileged user name.
2. To start Oracle Business Intelligence: `<MIDDLEWARE_HOME>/user_projects/domains/bi/bitools/bin/start.sh`
3. To stop Oracle Business Intelligence: `<MIDDLEWARE_HOME>/user_projects/domains/bi/bitools/bin/stop.sh`