



**Empirica™ Signal
Windows 2003/2008 Server
Installation and Upgrade Instructions
Release 7.3.3.4.361**

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1 Introduction

This guide describes tasks that are performed by a system administrator to install or upgrade the Empirica™ Signal application. This guide is intended for use by system administrators or database administrators who are familiar with Oracle relational databases and who host the Empirica Signal application at their own installations, rather than contracting for this service from Oracle.

The topics covered in this guide are:

- Installing Empirica Signal release 7.3
- Upgrading from Empirica Signal 7.2 to release 7.3
- Upgrading from Empirica Signal release 7.3 (7.3.333, 7.3.337, 7.3.341, 7.3.3.0.354, 7.3.3.1.356, 7.3.3.2.359 or 7.3.3.3.360) to release 7.3.3.4.361

This guide assumes familiarity with the process of setting Windows file permissions, administering IIS, configuring Windows Services, and setting up and configuring Oracle.

You perform all of the steps described on the Windows 2003/2008 server that will host the Empirica Signal application.

Note: Before beginning the Empirica Signal installation, you should review the Empirica Signal *Secure Configuration Guide* for recommendations on installing the Empirica Signal application and its system components securely.

2 Installing Empirica Signal release 7.3

To install the Empirica Signal application, you perform steps to do the following:

- Set up the database.
- Install the Empirica Signal software.
- Configure properties files.
- Configure the Empirica Signal application.
- Install report data.

Optionally, you can also:

- Install the sample topic workflow configuration.
- Install test data and verify the Empirica Signal installation.

Before you begin an Empirica Signal installation, you need the following:

- A username with admin privileges for the Windows 2003 SP2 or Windows 2008 server, and its password.
- The correct version from the Oracle Software Delivery Cloud.
- Oracle 10g or Oracle 11g R2 installed on the server, and at least one reboot of the server since the Oracle installation.
- Any ZIP archive manager (for example, the WinZip application).
- Internet Explorer 7.x, 8.x or 9.x.
- The “sys” and “system” passwords for the Oracle instance.
- Identification of the server as a 32-bit or 64-bit server.
- For each script that you run, the script produces a log file with the same name as the script in the current directory.

Note: As part of this installation, you set up several Oracle accounts, including a **webvdme** account and **TOPIC_WORKFLOW** account, as well as at least one data account and at least one dictionary account. Oracle 11g includes a default setting that requires you reset passwords for these accounts every six months.

2.1 Set Up the Database

2.1.1 Setting Up the Oracle Net Service Name

Create a TNS Name Entry named **webvdme** that points to the Oracle instance that will contain the Empirica Signal data.

Use the Net Manager to set up the **webvdme** Oracle Net Service name:

1. Launch the **Oracle > Configuration and Migration Tools > Net Manager** program.

2. Click to expand the **Local** node, and then select the **Service Naming** node.
3. Create a new service name by either selecting **Edit > Create** or clicking the **Create** icon (green plus sign) at left.

The **Net Service Name** wizard opens.

4. For the Net Service Name, type **webvdme**, and then click **Next**.
5. For the Protocol, select **TCP/IP (Internet Protocol)**, and then click **Next**.
6. For the Hostname, supply **localhost**, and for the Port, type **1521**, and then click **Next**.
7. If you are installing on Oracle 10g, select the **Oracle 8 or Previous** radio button, and for the SID supply the SID for your specific database (e.g. **ORCL**), and then click **Next**.

If you are installing on Oracle 11g, for the Service Name field type **ORCL**, and for the Connection Type select **Dedicated Server**.

8. Test if desired, and then click **Finish**.

The settings you specified for the **webvdme** service display on the right.

9. From the File menu, select **Save Network Configuration**, and then close Oracle Net Manager.

2.1.2 Setting Up the Empirica Signal Oracle Account

Supplied Empirica Signal installation scripts create the necessary Oracle tablespaces and accounts, and supply account contents to support Empirica Signal.

1. Locate the `database.zip` file in the product ZIP file from the Oracle Software Delivery Cloud and extract the contents of this file to a temporary location, such as `C:\install\database`.
2. Verify that the `DEFINE` statements in the `1_create_webvdme_tablespaces.sql` file point to your preferred location for the tablespace data files. For example, if you are installing with Oracle 11g, open this file with Notepad and review these lines:

```
DEFINE oracle11_datafile_path =  
'D:\oracle\product\11.2.0\dbhome_1\oradata'  
DEFINE datafile_path = &oracle11_datafile_path
```

3. Edit these lines if needed to reflect your path.
4. Open a Command Prompt window and execute the `1_create_webvdme_tablespaces` SQL script from the Oracle sys account. For example, enter:

```
C:> sqlplus "sys@webvdme as sysdba"  
@C:\install\database\1_create_webvdme_tablespaces
```

5. When prompted, enter the Oracle sys account password.

6. Enter:

```
C:> sqlplus "sys@webvdme as sysdba"  
@C:\install\database\2_create_webvdme_oracle_user
```

7. When prompted, enter the Oracle sys account password. When prompted a second time, create a password of your choice for the **webvdme** account and re-enter to verify. Remember this password.

8. At the Command Prompt execute the `3_create_all` SQL script from the **webvdme** account. For example:

```
C:> sqlplus webvdme@webvdme @C:\install\database\3_create_all
```

9. When prompted, enter the **webvdme** database account password that you created in the previous step.

2.1.3 Setting Up the Sample Topic Workflow Oracle Account (optional)

The supplied Empirica Signal installation scripts create the necessary Oracle tablespaces and account, and supply account contents to support Empirica Signal Topics.

1. At the Command Prompt execute the `create_topics_oracle_user` SQL script from the sys account. For example:

```
C:> sqlplus "sys@webvdme as sysdba"  
@C:\install\database\create_topics_oracle_user
```

2. When prompted, enter the Oracle sys account password. When prompted a second time, create a password of your choice for the `TOPIC_WORKFLOW` account and re-enter to verify. Remember this password.

3. At the Command Prompt execute the `create_sample_topics_tables` SQL script from the `TOPIC_WORKFLOW` database account created in the previous step. For example:

```
C:> sqlplus topic_workflow@webvdme  
@C:\install\database\create_sample_topics_tables
```

4. When prompted, enter the `TOPIC_WORKFLOW` database account password.

5. At the Command Prompt execute the `populate_sample_topics_tables` SQL script from the `TOPIC_WORKFLOW` database account in step 1. For example:

```
C:> sqlplus topic_workflow@webvdme  
@C:\install\database\populate_sample_topics_tables
```

6. When prompted, enter the `TOPIC_WORKFLOW` database account password.

2.2 Install Empirica Signal Software

2.2.1 Installing Prerequisite Files

To install the Microsoft Visual C++ 2005 SP1 Redistributable Package (x86):

1. Locate the `vcredist_x86.exe` file in the product ZIP file from the Oracle Software Delivery Cloud.
2. Double-click the `vcredist_x86.exe` file.
3. Click **Yes** and complete the installation.

2.2.2 Setting Up Web Site Files

1. Locate the `Lincoln_x64.zip` file in the product ZIP file from the Oracle Software Delivery Cloud. For a 32-bit server, use `Lincoln.zip` instead. Extract the contents of this file to `C:\`, making sure that path names stored in the archive will be used (for example, in WinZip, the **Use folder names** checkbox must be selected).
2. Locate the `SignalX.zip` file (where X represents the version number and build, for example, `Signal-7_3_3_4_361.zip`) in the product ZIP file from the Oracle Software Delivery Cloud. Extract the contents of this file to the `C:\Lincoln\apps\webvdme\webapps\web_root\` directory (created automatically by the previous step).
3. Locate the following file depending on your Oracle database version:
 - If you are using Oracle 10g, locate the `ojdbc14.jar` file in the `\jdbc\lib` folder of the Oracle installation directory.
 - If you are using Oracle 11g, locate the `ojdbc6.jar` file in the `\jdbc\lib` folder of the Oracle installation directory.
4. Copy the JAR file to the `C:\Lincoln\apps\webvdme\webapps\web_root\WEB-INF\lib` directory.
5. Navigate to the `C:\Lincoln\IIS\conf\iis_redirect.reg` file. If you changed any default paths, edit this file to reflect those paths before performing the next step.
6. To update the registry, double-click the `iis_redirect.reg` file. Click **Yes**, and then click **OK**.
7. In the same directory, double-click the `iis_cipher_configuration.reg` file. Click **Yes**, and then click **OK**.
8. Create a temp directory for the application, for example, `D:\Signal`.
Make note of this directory, as it will be needed in several future steps in the installation.

2.2.3 Making Empirica Signal the Default Application (optional)

1. Open the `C:\Lincoln\apps\webvdme\webapps\web_root\index.html` file in a text editor such as Notepad and change the URL on this line from:

```
<META HTTP-EQUIV=REFRESH CONTENT="0; URL=./login.jsp">
```

to:

```
<META HTTP-EQUIV=REFRESH CONTENT="0; URL=/webvdme/login.jsp">
```

Then save.

2. To make Empirica Signal the default application for this IIS installation, copy the `C:\Lincoln\apps\webvdme\webapps\web_root\index.html` file to the `C:\inetpub\wwwroot` directory.

2.2.4 Configuring IIS for Windows 2003 SP2

This section is for Windows 2003 SP2 Server only. If you are using Windows 2008, skip to section 2.2.5 Configuring IIS for Windows 2008.

1. Launch Start [/ Settings] / Control Panel / Administrative Tools / Internet [Information] Services (IIS) Manager.
2. Expand the Web Sites tree until you see Default Web Site, then right click on Default Web Site and select **Properties**.
3. On the ISAPI Filters tab, click **Add**. Add a filter with the following characteristics:

Filter Name: jakarta

Executable: `C:\Lincoln\IIS\bin\isapi_redirect.dll`

If making Empirica Signal the Default Application, select the Documents tab, check the "Enable Default Document [Content]" checkbox and set `index.html` as the top-most default document. (Add this document if necessary.)

On exiting the Properties dialog for Default Web Site, if you do not want to override the default document settings for any other virtual directories (e.g., Printers), click OK.

4. Right click on Default Web Site and select **New / Virtual Directory**. Set up a virtual directory for jakarta as follows:

Alias: jakarta

Directory [Path]: `C:\Lincoln\IIS\bin`

Access Permissions: check the "Read" and "Execute" checkboxes only

5. Enable the jakarta Web Service Extension
 - a. Open the IIS Manager Console.
 - b. Select the **Web Service Extensions** node.
 - c. Right-click the **Add a new Web service extension** link.

- d. Set the Extension name to **jakarta**.
- e. Add the C:\Lincoln\IIS\bin\isapi_redirect.dll file to the required files list.
- f. Check the “Set extension status to Allowed” checkbox.
- g. Click OK.

Note: No other Web Service Extensions are required for the application to function.

6. Right-click on Default Web Site and select **New / Virtual Directory**. Set up a virtual directory for **webvdme** as follows:

Alias: **webvdme**

Directory: C:\Lincoln\apps\webvdme\webapps\web_root

Access Permissions: select the **Read** checkbox only

7. Make `index.html` the default document for the **webvdme** virtual directory.
 - a. Right-click on the **webvdme** virtual directory and select Properties.
 - b. Select the Documents tab, select the **Enable Default Document [Content]** checkbox and set `index.html` as the top-most default document.
8. Restart the **World Wide Web Publishing Service** as follows:

Launch Start / Settings / Control Panel / Administrative Tools / Services. Right-click on the **World Wide Web Publishing Service**, then click Restart.

Alternatively, open a Command Prompt window as Administrator and enter the following:

```
net stop w3svc  
net start w3svc
```

2.2.5 Configuring IIS for Windows 2008

This section is for Windows 2008 Server only.

2.2.5.1 Set up required IIS roles

1. Launch Server Manager.
2. If not already present, add the Web Server (IIS) role.
3. Right-click Web Server (IIS), and select **Add Role Services**.
4. Select the following additional options under **Application Development**:
 - CGI
 - ISAPI Extensions
 - ISAPI Filters
5. Click **Next**.
6. Click **Install**.
7. Click **Close**.

2.2.5.2 Configure IIS

1. Navigate to **Start > Administrative Tools > Internet Information Services (IIS) Manager**.
2. Select your server name in the **Connections** pane.
3. Double-click **ISAPI and CGI Restrictions** under IIS.
4. On the **Actions** pane, click **Add**.
5. On the **ISAPI or CGI Restrictions** pop-up, complete the following:

ISAPI or CGI Path: C:\Lincoln\IIS\bin\isapi_redirect.dll
Description: jakarta

6. Select **Allow extension path to execute** and click **OK**.
7. Select **Default Web Site** under your server name on the **Connections** pane.
8. Double-click **ISAPI Filters**.
9. Click **Add** from the **Actions** pane and key in the following characteristics:

Filter name: jakarta
Executable: C:\Lincoln\IIS\bin\isapi_redirect.dll

10. Click **OK**.
11. Right-click on **Default Web Site** and select **Add Virtual Directory**.
12. Type the following:

Alias: jakarta
Physical Path: C:\Lincoln\IIS\bin

13. Click **OK**.
14. Select **jakarta**, and then double-click **Handler Mappings**.
15. In the **Actions** pane, select **Edit Feature Permissions**.
16. Ensure that **Execute** is selected and click **OK**.
17. Right click on **Default Web Site** and select **Add Virtual Directory**.
18. Type the following:

Alias: webvdme

Physical Path: C:\Lincoln\apps\webvdme\webapps\web_root

19. Click **OK**.

2.2.5.3 Configure IIS to show detailed error messages from Tomcat

1. Navigate to **Start > Administrative Tools > Internet Information Services (IIS) Manager**.
2. In the **Connections** pane, expand the tree for **Sites**, and select the **Default Web Site**.
3. In the IIS section, double-click **Error Pages**.
4. In the **Actions** pane, click **Edit Feature Settings**.
5. In the **Edit Error Pages Settings** dialog box, select **Detailed errors**.
6. Click **OK**.
7. Restart the World Wide Web Publishing Service (W3SVC).

2.2.6 Installing the webvdme keys and service

1. For Windows 2003 SP2 only, update the lcalcs.exe utility by following the instructions located at <http://support.microsoft.com/kb/943043>.
2. For both Windows 2003 SP2 and 2008, edit the
C:\Lincoln\apps\webvdme\bin\install_service.bat file so that the WORKING_DIR is the value of the temporary directory from section 2.2.2 Setting Up Web Site Files.
Save.
3. For Windows 2008, right-click on the install_service.bat file, and then select **Run as administrator**.
Or
For Windows 2003, double-click on the install_service.bat file.
4. After install_service.bat has completed, when prompted, type any key.

5. For Windows 2008, right-click on the
C:\Lincoln\apps\webvdme\bin\generate_keys.bat file, and then select **Run as administrator**.

Or

For Windows 2003, double-click on the
C:\Lincoln\apps\webvdme\bin\generate_keys.bat file.
6. After generate_keys.bat has completed, when prompted, type any key.
7. Right-click on the server's desktop **My Computer** icon, and then select **Manage**.
8. For Windows 2008, expand **Configuration > Local Users and Groups > Users**, and for Windows 2003 SP2, expand **System Tools > Local Users and Groups > Users**.
9. Right-click on **webvdme_app** and select **Set Password**.
10. In the **Set Password for webvdme_app** dialog box, click **Proceed**.
11. Change the password to satisfy site password policy restrictions, and then click **OK**.
12. Expand the **Services and Applications** directory, and then click **Services**.
13. Right-click on the **webvdme** service and select **Properties**.
14. On the **Log On** tab, do the following:
 - a. Select the **This account** radio button.
 - b. Click **Browse**.
 - c. Enter **webvdme_app** in the Edit field.
 - d. Click the **Check Names** button.
 - e. Click **OK**.
 - f. Clear the password fields and enter the **webvdme_app** password you just changed.
15. On the **Recovery** tab, set **First Failure** and **Second Failure** to **Restart the Service**.
16. Click **OK**.
17. In the product ZIP file from the Oracle Software Delivery Cloud, copy the **lt_DiskUtil_x64.dll** file to the following location and rename this file to **lt_DiskUtil.dll**. For a 32-bit server, copy **lt_DiskUtil.dll** instead.

For Windows 2003 SP2 and Windows 2008: C:\windows\system32

Note: If the file already exists in that directory, overwrite it.

2.3 Configure Properties Files

2.3.1 Reviewing webvdme.properties

The `webvdme.properties` file stores database connection information for the Empirica Signal application.

1. Navigate to `C:\Lincoln\apps\webvdme\webapps\web_root\WEB-INF\classes`.
2. Copy the `template_webvdme.properties` file to the same directory, and name it `webvdme.properties`.
3. Use a text editor such as Notepad to open the `webvdme.properties` file.
4. Review the settings for the following values in the file:

```
user=webvdme
pass=<password>
connect=jdbc:oracle:thin:@//localhost:1521/ORCL
sqlldr_connect=webvdme
```
5. Modify the password to match the password established in 2.1.2 Setting Up the Empirica Signal Oracle Account step 7.
6. Modify `temp_dir=<temporary directory>` with the value of the temporary path established in 2.2.2 Setting Up Web Site Files step 8.
7. Save the file.

Note: You can set the Empirica Signal application to encrypt this password. See the steps in the *Configure the Empirica Signal Application* section.

2.3.2 Reviewing listener.properties

The `listener.properties` file stores information used by Empirica Signal data mining.

1. Navigate to `C:\Lincoln\apps\webvdme\webapps\web_root\WEB-INF\classes`.
2. Copy the `template_listener.properties` file to the same directory, and name it `listener.properties`.
3. Use a text editor such as Notepad to open the `listener.properties` file.
4. Edit values as needed, for example, values for Oracle 10g or Oracle 11g.
5. Save the file.

2.3.3 Creating webvdme-fonts.properties

The `webvdme-fonts.properties` file stores font information used by Empirica Signal.

1. Navigate to the `C:\Lincoln\apps\webvdme\webapps\web_root\WEB-INF\classes` directory.

2. Copy the `template_webvdme-fonts.properties` file to the same directory, and rename it `webvdme-fonts.properties`.

2.3.4 Set permissions

1. Navigate to `C:\Lincoln\apps\webvdme\bin`.
2. Edit the `C:\Lincoln\apps\webvdme\bin\set_permissions.bat` file so that the `WORKING_DIR` is the value of the temporary directory from section 2.2.2 Setting Up Web Site Files.
3. Optionally grant permission to a Windows group of non-administrator users who may require limited access to the `\web_root` application directory. You may grant access to users who execute Signal Management and deploy data releases. For example, a non-administrator user who copies the data release notes to the `\web_root\relnotes` directory requires this limited access. Do the following:
 - a. While editing the `set_permissions.bat` file, locate the following lines:

```
REM -  
REM - Local Administrators group  
REM -  
REM SET ADMIN_GROUP=Signal Operators
```
 - b. Remove `REM` from the `REM SET ADMIN_GROUP` line.
 - c. Replace `Signal Operators` with the appropriate Windows user group that requires access.
4. Save your changes.
5. For Windows 2008, right-click on the `set_permissions.bat` file, and then select **Run as administrator**.
Or
For Windows 2003, double-click on the `set_permissions.bat` file.
6. After `set_permissions.bat` has completed, when prompted, type any key.

2.4 Start the Empirica Signal Service

Start the **webvdme** service in the Services Control Panel.

2.5 Configure the Empirica Signal application

Before users can begin using the Empirica Signal application, you must complete the following tasks. See the Empirica Signal *User Guide* for more details on how to accomplish each step.

1. To test that the site is set up properly, open Internet Explorer. If you made Empirica Signal the default application for IIS, enter:

`http://<server name>`

Otherwise, navigate to:

`http://<server name>/webvdme`

Note: If your site is configured to require SSL connections, use `https://` instead of `http://`.

The Empirica Signal login page should display.

2. Log in to Empirica Signal using the default administrative account and initial password provided by Oracle:

Username: `admin`

Password: `abc123`

3. Change your password.
4. Log in to the Empirica Signal using the default administrative account and the new password from step 3. The Empirica Signal home page should display.
5. Click **Settings** and then click **Set Site Options**. Verify the SMTP server name and other options for your site on this page. Ensure that all site options are set appropriately for your installation.
6. Optionally, set Empirica Signal to encrypt the database password: click **Settings** then click **Set Database Connection**.

Enter your username and password, and then select **Encrypt Password**.

7. Log out of Empirica Signal: click **Exit**.

The Empirica Signal software installation is complete.

2.6 Install Report Data

To use the standard reports provided with Empirica Signal 7.3, a small data “stub” must be installed in the oracle database. This section describes how to install the necessary configuration, AERS (1q03: S). You should not perform this procedure if you already have installed a copy of the AERS68_TO_1Q03 data set on the server that hosts Empirica Signal.

The product ZIP file for the Empirica Signal application includes a `Data_Stub` folder containing `wvprod.zip`, which is a WinZip archive file containing an Oracle DMP file, a SQL script, and a batch file.

You perform all of the steps described in this section on the server that hosts Empirica Signal.

2.6.1 Unzipping the Archive file

1. Create a new directory on the server named `wvprod` (for example, `C:\wvprod\`).
2. Copy the `wvprod.zip` archive file from the `Data_Stub` folder in the product ZIP file to the new `wvprod` directory.
3. Use WinZip to extract the zipped files into the `wvprod` directory.
4. The `C:\wvprod\` directory should contain an Oracle DMP file of the data, a SQL script, an IMP file, and a batch file.

2.6.2 Creating Tablespaces and Accounts

To create the tablespaces and accounts used to store the production data:

1. Open the `C:\wvprod\create_prod.sql` file in a text editor such as Notepad. By default, this script will store tablespace files in the `D:\oracle\product\10.2.0\oradata\orcl` directory.

2. If necessary, edit the paths in the `DATAFILE` section of this script to indicate a different location for the Oracle tablespace data files.

The specified path must already exist on your computer, and can be in any location, although conventionally it is in a subdirectory of the `oradata` subdirectory of your Oracle installation.

3. Open a Command Prompt window.
4. Change to the `wvprod` directory (for example, `cd C:\wvprod`).
5. Execute the script. On one line, type:

```
C:> sqlplus system@webvdme @create_prod
```

Enter the Oracle system account password when prompted.

6. Exit from SQL:

```
SQL> exit
```

The `create_prod.sql` script creates a tablespace for the data consisting of one 40 MB data file.

2.6.3 Importing the Data

To load the data into Oracle:

1. Edit the `load_prod.imp` file to supply your Oracle instance at the end of the `userid` line. For example:


```
userid=AERS68_TO_1Q03/<password>@orcl
```

2. Execute the batch file:

```
C:\wvprod> load_prod.bat
```

2.6.4 Importing AERS (1Q03: S) Configuration

To import the supplied standard configuration into Empirica Signal:

1. Log in to Empirica Signal with the admin username.
2. Click **Settings** then click **Manage Configurations**.
3. Click **Import Configurations**.
4. Supply the following account name and password:
Oracle Account: AERS68_TO_1Q03
Oracle Password: <password>
5. Click **OK**.
6. Verify that the AERS (1q03: S) standard configuration is listed on the Manage Configurations page.
7. On the Manage Configurations page, click  and click **Edit** in the popup menu that appears.
8. On the Modify Configuration page, click **Validate Now**.
9. Check “Ignore Warnings” and click **Validate Now** again. You can ignore the warning message about the hierarchy account for the PT variable; the message does not prevent the validation from completing.
10. Click **Continue**.

For more information on working with configurations, see the Empirica Signal online help.

2.6.5 Deleting the C:\wvprod Directory

When you have completed all of the installation procedures, you can delete the `wvprod` directory and its contents.

2.7 Import the Sample Topic Workflow Configuration (optional)

This section describes how to import the “Sample Topic Workflow Configuration” for use in Empirica Signal. This step is not essential, but it is recommended so that you will have a sample configuration to copy and use as a template for new configurations. The sample configuration itself should not be edited.

To import the supplied Sample Topic Workflow configuration into Empirica Signal:

1. Log in to Empirica Signal with the admin username.
2. Click **Settings** and then click **Manage Topic Workflow Configurations**.

3. Click **Import Workflow Configurations**.
4. Supply the following account name and password:
Oracle Account: TOPIC_WORKFLOW
Oracle Password: <TOPIC WORKFLOW password>
5. Click **Import**.
6. Verify that the Sample Topic Workflow Configuration is listed on the Manage Topic Workflow Configurations page.

For information about working with topic workflow configurations, see the Empirica Signal online help.

2.8 Install Test Data

This section describes optional procedures for installing test data and verifying that Empirica Signal is working properly.

2.8.1 Installing the Test Database

1. Locate the files you extracted from the `database.zip` file to create and populate the Empirica Signal Oracle account. For example, `C:\install\database`.
2. If you have an existing `TEST_IQOQ` account, drop the existing `TEST_IQOQ` Oracle account. Open a Command Prompt window, enter the drop command for that account, and then exit. For example:

```
sqlplus system@webvdme
```

At the prompt, enter the `TEST_IQOQ` password.

```
drop user TEST_IQOQ cascade;
```

```
exit
```

3. To create the Oracle tables in a `TEST_IQOQ` Oracle account, execute the following SQL script as the Oracle system user. Enter this command on one line. For example:

```
sqlplus system@webvdme @C:\install\database\4_create_test_iqoq_oracle_user
```

At the prompt, enter the system password.

4. At the second prompt, create a password for the `TEST_IQOQ` account and re-enter to verify. Remember this password.
5. To populate the test database in the `TEST_IQOQ` Oracle account, execute the following SQL script. Enter this command on one line. For example:

```
sqlplus TEST_IQOQ@webvdme  
@C:\install\database\5_populate_test_iqoq
```

At the prompt, enter the `TEST_IQOQ` password.

2.9 Verify the Empirica Signal Installation

For Installation Qualification (IQ) and Operational Qualification (OQ) testing, please refer to the `IQ_Test.doc` and `OQ_Test.doc` files supplied in the product ZIP file from the Oracle Software Delivery Cloud.

3 Upgrading from Empirica Signal 7.2 to 7.3.3.4.361

These instructions apply to upgrades from all previous versions of Empirica Signal 7.2 to the most recently released version of 7.3.

Before you begin an Empirica Signal upgrade, you will need:

- A username with admin privileges for the Windows 2003 server, and its password.
- The correct version from the Oracle Software Delivery Cloud.
- The password for an administrator-level Empirica Signal username.
- The passwords for the **TOPIC_WORKFLOW** and **webvdme** Oracle database accounts.
- Identification of the server as a 32-bit or 64-bit server.
- Identification of the version of Empirica Signal 7.2 you are using.
- Identification of the version of the Oracle Database you are using.

If your installation uses any custom reports, before you perform the upgrade consult Oracle for recommended procedures for retaining those reports.

3.1 Database Updates

3.1.1 Running the Database Upgrade Scripts

1. To stop the **webvdme** and World Wide Web Publisher service:
 - a. Open Start > Administrative Tools > Services.
 - b. Right-click the **WebVDME** service, and then click **Stop**.
 - c. Right-click the **World Wide Web Publishing Service**, and then click **Stop**.
2. Open the C:\Lincoln\apps\webvdme\bin\ directory.
3. To uninstall the **webvdme** service, double-click **uninstall_service.bat**.
4. Rename the **C:\Lincoln** directory to **C:\Lincoln.old**.
5. Locate the following SQL scripts in the `database.zip` file in the product ZIP file from the Oracle Software Delivery Cloud and extract them to a temporary location such as C:\install:

```
update_7_2_to_7_2_P1.sql  
update_twc_7_2_to_7_2_P1.sql  
update_7_2_P1_to_7_3.sql  
update_twc_7_2_P1_to_7_3.sql  
update_7_3_to_7_3_P3.sql
```

6. Open a Command Prompt window and change to the directory containing the upgrade scripts.
7. If you are on Empirica Signal 7.2.149 or greater, skip to step 8. Otherwise, to upgrade the Empirica Signal schema from Empirica Signal 7.2.140 to Empirica Signal 7.2.149:
 - a. Enter the following command:

```
sqlplus webvdme@webvdme @update_7_2_to_7_2_P1
```
 - b. When prompted, enter the password for the **webvdme** schema.

The log file `update_7_2_to_7_2_P1.log` is created in the same temporary location as the SQL scripts.
 - c. To upgrade Topics schemas from Empirica Signal 7.2.140 to Empirica Signal 7.2.149, enter the following command from the topic workflow account (usually `topic_workflow`):

```
sqlplus topic_workflow@webvdme @update_twc_7_2_to_7_2_P1
```

The script reports the ID and name of each topic workflow configuration in the account **TOPIC_WORKFLOW**. All topic workflow configurations must be upgraded one at a time.
 - d. At the prompt, enter the ID of a configuration (for example, 0), and then type **Enter**.

The topic workflow configuration with that ID is upgraded and the log file `update_twc_7_2_to_7_2_P1.log` is created.
8. After you upgrade to Empirica Signal release 7.2.149, or if you are already on Empirica Signal release 7.2.149 or greater, enter the following command to upgrade the Empirica Signal schema to Empirica Signal 7.3.333:

```
sqlplus webvdme@webvdme @update_7_2_P1_to_7_3
```
9. When prompted, enter the password for the **webvdme** schema.

The log file `update_7_2_P1_to_7_3.log` is created in the same temporary location as the SQL scripts.

The log file might include the following types of errors, which are expected and can be ignored:

 - “Cannot drop constraint – nonexistent constraint” errors for `FK_SIGVIEW_PUBLISH_1`, `FK_SIGVIEW_PUBLISH_2`, `FK_SIGVIEW_PUBLISH_3`, `FK_SIGNAL_VIEW_1`, `FK_SIGNALCONFIGTABLEGROUP_X`, `FK_SIGNALCONFIGTABLEGROUP_2`, `FK_SIGNALCONFIG_2`, `FK_SIGNALCONFIG_4`.
 - “column to be modified to NOT NULL is already NOT NULL” errors for `SIGNALSUMMARY_0` and `SIGNALSTATGROUP_0`.
10. To upgrade the Empirica Signal schema from Empirica Signal 7.3.333 to the latest schema, enter the following command:

```
sqlplus webvdme@webvdme @update_7_3_to_7_3_P3
```
11. When prompted, enter the password for the **webvdme** schema.

The log file `update_7_3_to_7_3_P3.log` is created in the same temporary location as the SQL scripts.

12. To upgrade Topics schemas from Empirica Signal 7.2.149 to Empirica Signal 7.3, enter the following command from the topic workflow account (usually `topic_workflow`):

```
sqlplus topic_workflow@webvdme @update_twc_7_2_P1_to_7_3
```

13. When prompted, enter the password for the **TOPIC_WORKFLOW** schema. The log file `update_twc_7_2_P1_to_7_3.log` is created.

3.2 Install Empirica Signal 7.3 Software

3.2.1 Setting Up Web Site Files

1. Locate the `Lincoln_x64.zip` file in the product ZIP file from the Oracle Software Delivery Cloud. For a 32-bit server, use `Lincoln.zip` instead. Extract the contents of this file to `C:\`, making sure that path names stored in the archive will be used (for example, in WinZip, the **Use folder names** checkbox must be selected).
2. Locate the `SignalX.zip` file (where X represents the version number and build, for example, `Signal-7_3_3_4_361.zip`) in the product ZIP file from the Oracle Software Delivery Cloud. Extract the contents of this file to the `C:\Lincoln\apps\webvdme\webapps\web_root\` directory (created automatically by the previous step).
3. Locate the following file depending on your Oracle database version:
 - If you are using Oracle 10g, locate the `ojdbc14.jar` file in the `\jdbc\lib` folder of the Oracle installation directory.
 - If you are using Oracle 11g, locate the `ojdbc6.jar` file in the `\jdbc\lib` folder of the Oracle installation directory.
4. Copy the JAR file to the `C:\Lincoln\apps\webvdme\webapps\web_root\WEB-INF\lib` directory.
5. Navigate to the `C:\Lincoln\IIS\conf\iis_redirect.reg` file. If you changed any default paths, edit this file to reflect those paths before performing the next step.
6. To update the registry, double-click the `iis_redirect.reg` file. Click **Yes**, and then click **OK**.
7. In the same directory, double-click the `iis_cipher_configuration.reg` file. Click **Yes**, and then click **OK**.
8. Create a temp directory for the application, for example, `D:\Signal`.
Make note of this directory, as it will be needed in several future steps in the installation.

Note: You might want to delete or archive your old temp directory, usually

D:\webvdme.

3.2.2 Making Empirica Signal the Default Application (optional)

1. Open the C:\Lincoln\apps\webvdme\webapps\web_root\index.html file in a text editor such as Notepad and change the URL on this line from:

```
<META HTTP-EQUIV=REFRESH CONTENT="0; URL=./login.jsp">
```

to:

```
<META HTTP-EQUIV=REFRESH CONTENT="0; URL=/webvdme/login.jsp">
```

Then save.

2. To make Empirica Signal the default application for this IIS installation, copy the C:\Lincoln\apps\webvdme\webapps\web_root\index.html file to the C:\inetpub\wwwroot directory. Click **Yes** if prompted to replace.
3. If making Empirica Signal the Default Application, select the Documents tab, check the **Enable Default Document [Content]** checkbox and set index.html as the top-most default document. (Add this document if necessary.)

3.2.3 Installing the webvdme keys and service

1. For Windows 2003 only, update the lcalcs.exe utility by following the instructions located at <http://support.microsoft.com/kb/943043>.
2. Edit the C:\Lincoln\apps\webvdme\bin\install_service.bat file so that the WORKING_DIR is the value of the temporary directory from section 3.2.1 Setting Up Web Site Files. Save.
3. Double-click on the install_service.bat file.
4. After install_service.bat has completed, when prompted, type any key.
5. Double-click on the C:\Lincoln\apps\webvdme\bin\generate_keys.bat file.
6. After generate_keys.bat has completed, when prompted, type any key.
7. Right-click on the server's desktop **My Computer** icon, and then select **Manage**.
8. Expand **System Tools > Local Users and Groups > Users**.
9. Right-click on **webvdme_app** and select **Set Password**.
10. In the **Set Password for webvdme_app** dialog box, click **Proceed**.
11. Change the password to satisfy local site password requirements, and then click **OK**. Note this password for Step 14.
12. Expand the **Services and Applications** directory, and then click **Services**.
13. Right-click on the **webvdme** service and select **Properties**.

14. On the **Log On** tab, select the **This account** radio button, and then clear the password fields and enter the **webvdme_app** password you just changed.
15. On the **Recovery** tab, set **First Failure** and **Second Failure** to **Restart the Service**.
16. Click **OK**.

3.2.4 Migrate data from 7.2 to 7.3

1. Copy any custom content (such as custom home pages) from the previous installation to the new installation. For example, copy your file from:

```
C:\Lincoln.old\apps\webvdme\webapps\web_root\customhomes
```

to:

```
C:\Lincoln\apps\webvdme\webapps\web_root\customhomes
```

2. Copy any custom images from the previous installation to the new installation. For example, copy your file from:

```
C:\Lincoln.old\apps\webvdme\webapps\web_root\image
```

to:

```
C:\Lincoln\apps\webvdme\webapps\web_root\image
```

3. Copy any relevant release notes from the previous installation to the new installation. For example, copy release notes file from:

```
C:\Lincoln.old\apps\webvdme\webapps\web_root\relnotes
```

to:

```
C:\Lincoln\apps\webvdme\webapps\web_root\relnotes
```

3.3 Configure Properties Files

3.3.1 Reviewing webvdme.properties

The `webvdme.properties` file stores database connection information for Empirica Signal.

1. Navigate to `C:\Lincoln\apps\webvdme\webapps\web_root\WEB-INF\classes`.
2. Copy the `template_webvdme.properties` file to the same directory, and name it `webvdme.properties`.
3. Use a text editor such as Notepad to open the `webvdme.properties` file.
4. Review the settings for the following values in the file:

```
user=webvdme
```

```
pass=<password>
```

```
connect=jdbc:oracle:thin:@//localhost:1521/ORCL
```

```
sqlldr_connect=webvdme
```

5. Modify the password to match webvdme database schema password.

6. Modify `temp_dir=<temporary directory>` with the value of the temporary path established in 3.2.1 Setting up the Web Site Files step 8.
7. Save the file.

Note: You can set the Empirica Signal application to encrypt this password. See the steps in the *Configure the Empirica Signal Application* section.

3.3.2 Reviewing listener.properties

The `listener.properties` file stores information used by Empirica Signal data mining.

1. Navigate to `C:\Lincoln\apps\webvdme\webapps\web_root\WEB-INF\classes`.
2. Copy the `template_listener.properties` file to the same directory, and name it `listener.properties`.
3. Use a text editor such as Notepad to open the `listener.properties` file.
4. Edit values as needed, for example, values for Oracle 10g or Oracle 11g.
5. Save the file.

3.3.3 Creating webvdme-fonts.properties

The `webvdme-fonts.properties` file stores font information used by Empirica Signal.

1. Navigate to the `C:\Lincoln\apps\webvdme\webapps\web_root\WEB-INF\classes` directory.
2. Copy the `template_webvdme-fonts.properties` file to the same directory, and rename it `webvdme-fonts.properties`.

3.4 Set permissions

1. Navigate to `C:\Lincoln\apps\webvdme\bin`.
2. Locate the `C:\Lincoln\apps\webvdme\bin\set_permissions.bat` file
3. Optionally grant permission to a Windows group of non-administrator users who may require limited access to the `\web_root` application directory. You may grant access to users who execute Signal Management and deploy data releases. For example, a non-administrator user who copies the data release notes to the `\web_root\relnotes` directory requires this limited access. Do the following:
 - a. Edit the `C:\Lincoln\apps\webvdme\bin\set_permissions.bat` file.
 - b. Locate the following lines:

```
REM -  
REM - Local Administrators group  
REM -
```

```
REM SET ADMIN_GROUP=Signal Operators
```

- c. Remove `REM` from the `REM SET ADMIN_GROUP` line.
 - d. Replace `Signal Operators` with the appropriate Windows user group that requires access.
4. Save your changes.
 5. For Windows 2008, right-click on the `set_permissions.bat` file, and then select **Run as administrator**.

Or

For Windows 2003, double-click on the `set_permissions.bat` file.

6. After `set_permissions.bat` has completed, when prompted, type any key.

3.5 Start the Empirica Signal Service

1. Right-click the **webvdme** service, and then click **Start**.
2. Right-click the **World Wide Web Publishing Service**, and then click **Start**.

3.6 Verify the Empirica Signal Upgrade

For Upgrade Qualification (UQ) and Operational Qualification (OQ) testing, please refer to the `UQ_Test.doc` and `OQ_Test.doc` files supplied in the product ZIP file from the Oracle Software Delivery Cloud.

3.7 Reviewing `ldap.properties`

For LDAP configurations, the `ldap.properties` file stores LDAP configuration information. For information on editing the LDAP configuration, see the *Configuring Empirica Signal for Use with LDAP* topic in the Empirica Signal Help.

4 Upgrading from Empirica Signal 7.3.x to Empirica Signal 7.3.3.4.361

This section provides instructions for upgrading to Empirica Signal 7.3.3.4.361 from one of the following releases:

- 7.3.333
- 7.3.337
- 7.3.341
- 7.3.3.0.354
- 7.3.3.1.356
- 7.3.3.2.359
- 7.3.3.3.360

Before you begin an Empirica Signal upgrade, you will need:

- A username with admin privileges for the Windows 2003 or Windows 2008 server, and its password.
- The correct version from the Oracle Software Delivery Cloud.
- The password for an administrator-level Empirica Signal username.
- The passwords for the **webvdme** accounts.
- Identification of the server as a 32-bit or 64-bit server.
- Identification of the version of Empirica Signal 7.3 you are using.
- Identification of the version of the Oracle Database you are using.

If your installation uses any custom reports, consult Oracle before you perform the upgrade for recommended procedures to retain those reports.

4.1 Database Updates

4.1.1 Running the Database Upgrade Scripts

1. To stop the **webvdme** and World Wide Web Publisher service:
 - a. Open Start > Administrative Tools > Services.
 - b. Right-click the **webvdme** service, and then click **Stop**.
 - c. Right-click the **World Wide Web Publishing Service**, and click **Stop**.

If you are on Empirica Signal 7.3.3.0.354, 7.3.3.1.356, 7.3.3.2.359, or 7.3.3.3.360, skip to section 4.2. Otherwise, to upgrade the Empirica Signal schema from Empirica Signal 7.3 to Empirica Signal 7.3 SP3:

2. Locate the following SQL script in the `database.zip` file and extract it to a temporary location such as `C:\install`:
`update_7_3_to_7_3_P3.sql`
3. Open a Command Prompt window and change to the directory containing the upgrade script.
4. To upgrade the Empirica Signal schema from Empirica Signal 7.3 to Empirica Signal 7.3 Patch 3, enter the following command:
`sqlplus webvdme@webvdme @update_7_3_to_7_3_P3`
5. When prompted, enter the password for the **webvdme** schema.
The log file `update_7_3_to_7_3_P3.log` is created in the same temporary location as the SQL scripts.

4.2 Install Empirica Signal release 7.3

1. Delete the following directory:
`C:\Lincoln\jdk1.6`
2. Locate the file `jdk1.6.0_81.zip` on the product ZIP file. For a 64-bit server, use `jdk1.6.0_81_x64.zip` instead. Extract the contents of this file to the following directory:
`C:\Lincoln`
3. Navigate to the following directory:
`C:\Lincoln\apps\webvdme\bin`
4. For Windows 2008, right-click the `uninstall_service.bat` file, and select **Run as administrator**.
Or
For Windows 2003, double-click on the `uninstall_service.bat` file.
5. When prompted in the `cmd.exe` window, press any key.
6. Delete the following directory:
`C:\Lincoln\apache-tomcat-6.0.NN`
7. Locate the `apache-tomcat-6.0.41.zip` file on the product ZIP file. For a 64-bit server, use `apache-tomcat-6.0.41_x64.zip` instead.
8. Extract the contents of this file to the `C:\Lincoln` directory, making sure that path names stored in the archive are used. For example, in WinZip, select the Use folder names checkbox.
9. Locate the `isapi_redirect-1.2.40.zip` file on the product ZIP file. For a 64-bit server, use `isapi_redirect-1.2.40_x64.zip` instead.

10. Extract the contents of this file to the `C:\Lincoln\IIS\bin` directory. If prompted, confirm the replacement of files.

11. Navigate to the following directory:

`C:\Lincoln\apps\webvdme\bin`

12. Right-click the `install_service.bat` file, and select **Properties**.

13. On the **General** tab, clear the **Read-only** checkbox, and click **OK**.

14. Edit the `install_service.bat` file and do the following:

- a. For the line that begins with `set CATALINA_HOME`, replace `apache-tomcat-6.0.NN` with `apache-tomcat-6.0.41`
- b. For the section of the file titled `Creating service user`, comment out the last three lines by adding `REM` at the beginning of the line.

All lines in the section should begin with `REM`.

15. For Windows 2008, right-click on the `install_service.bat` file, and then select **Run as administrator**.

Or

For Windows 2003, double-click on the `install_service.bat` file.

16. Right-click the `uninstall_service.bat` file, and select **Properties**.

17. On the **General** tab, deselect the **Read-only** checkbox, and click **OK**.

18. Edit the `uninstall_service.bat` file and, for the line that begins with `set CATALINA_HOME`, replace `apache-tomcat-6.0.NN` with `apache-tomcat-6.0.41`.

19. On the server, right-click **My Computer**, and select **Manage**.

20. Expand the **Services and Applications** directory, and select **Services**.

21. Right-click the **webvdme** service, and select **Properties**.

22. On the **Log On** tab, do the following:

- a. Select the **This account** radio button.
- b. Click **Browse**.
- c. In the Edit field, enter **webvdme_app**.
- d. Click the **Check Names** button.
- e. Click **OK**.
- f. Clear the password fields and enter the password that you established for **webvdme_app** in a previous installation or upgrade. If you do not know the

password, see [Installing the webvdme keys and service](#), steps 7 through 11, for information about resetting the password.

23. On the **Recovery** tab, set **First Failure** and **Second Failure** to **Restart the Service**.

24. Click **OK**.

25. If it already exists, delete the following directory:

```
C:\Lincoln\apps\webvdme\webapps\web_root.old
```

26. Create the C:\Lincoln\apps\webvdme\webapps\web_root.old directory and **move** the contents of C:\Lincoln\apps\webvdme\webapps\web_root to web_root.old.

27. Locate the signalX.zip file (where X is version number and build, such as signal-7_3_3_4_361.zip) in the product ZIP file from the Oracle Software Delivery Cloud. Extract the contents of this file to the following directory, making sure that path names stored in the archive will be used. For example, in WinZip, select the **Use folder names** checkbox.

```
C:\Lincoln\apps\webvdme\webapps\web_root\
```

28. For a 64-bit server, update 32-bit JRE by doing following:

a. Delete the following directory:

```
C:\Lincoln\apps\webvdme\webapps\jre
```

b. Locate the jre1.6.0_81_x32.zip file in the product ZIP file from the Oracle Software Delivery Cloud.

c. Extract the contents of this file to the following directory, making sure that path names stored in the archive will be used. For example, in WinZip, select the **Use folder names** checkbox.

```
C:\Lincoln\apps\webvdme\webapps\
```

29. Locate the following file depending on your Oracle database version and copy the file to C:\Lincoln\apps\webvdme\webapps\web_root\WEB-INF\lib.

- If you are using Oracle 10g, locate the ojdbc14.jar file in the \jdbc\lib folder of the Oracle installation directory.
- If you are using Oracle 11g, locate the ojdbc6.jar file in the \jdbc\lib folder of the Oracle installation directory.

30. Copy the listener.properties, webvdme.properties, webvdme-fonts.properties, and optional ldap.properties files from the previous installation to the new installation. Copy these files from:

```
C:\Lincoln\apps\webvdme\webapps\web_root.old\WEB-INF\classes
```

to:

```
C:\Lincoln\apps\webvdme\webapps\web_root\WEB-INF\classes
```


31. If you have created or included any custom content (home pages or logos), then copy those files back from the previous installation to the new installation. For example, copy your home page file from:

C:\Lincoln\apps\webvdme\webapps\web_root.old\customhomes

to:

C:\Lincoln\apps\webvdme\webapps\web_root\customhomes

Or copy your custom logo file from:

C:\Lincoln\apps\webvdme\webapps\web_root.old\image

to:

C:\Lincoln\apps\webvdme\webapps\web_root\image

32. Copy any relevant release notes from the previous installation to the new installation. For example, copy release notes files from:

C:\Lincoln\apps\webvdme\webapps\web_root.old\relnotes

to:

C:\Lincoln\apps\webvdme\webapps\web_root\relnotes

33. Delete the contents of the following directory:

C:\Lincoln\apps\webvdme\work

34. If you are on Empirica Signal 7.3.3.0.354, 7.3.3.1.356, 7.3.3.2.359 or 7.3.3.3.360, skip to section 4.3.

35. Locate the Upgrade directory in your installation media.

36. If you are on Empirica Signal 7.3.341 or earlier, copy the following files to C:\Lincoln\apps\webvdme\bin, overwriting the existing files if prompted:

- EmpiricaPropPassword.jar
- ldap_search_password.bat
- obiee_auth_password.bat
- set_permissions.bat

37. If you are on Empirica Signal 7.3.341 or earlier, copy the following files to C:\Lincoln\apps\webvdme\lib, overwriting the existing files if prompted:

- obiee_auth.properties
- ESAPI.properties.in

38. If you are on Empirica Signal 7.3.341 or earlier, navigate to the following directory and delete the ESAPI.properties file, if it exists:

C:\Lincoln\apps\webvdme\lib

39. If you are on Empirica Signal 7.3.341 or earlier, generate instance-specific keys.

For Windows 2008, right-click on the

C:\Lincoln\apps\webvdme\bin\generate_keys.bat file, and then select **Run as administrator**.

Or

For Windows 2003, double-click on the

C:\Lincoln\apps\webvdme\bin\generate_keys.bat file.

After `generate_keys.bat` has completed, when prompted, type any key.

40. If you are on Empirica Signal 7.3.341 or earlier, copy the new LDAP and ACL properties from the `template_webvdme.properties` file to your existing `webvdme.properties` file. Copy the following sections:

Upgrading from Empirica Signal 7.3.x to Empirica Signal 7.3.3.4.361

```
# Configure the following property only when you implement LDAP authentication
# and Empirica Signal should use an ldap configuration file other than the
# default value of ldap.properties. For more information on LDAP template
# files and implementing LDAP, see the Empirica Signal Help.
#ldapPropertyFile=
#
# Configure the following properties when you implement IP access control
# lists and remote user IP identification. For more information, see the
# Empirica Signal Help.
# IP Access Control Lists properties.
# Enables or disables IP access control lists.
IPACL_ENABLE=FALSE
# Determines where the source IP is obtained.
# Evaluated only when IPACL_ENABLE=TRUE.
#IPACL_SOURCE=HEADER
# Indicates the HTTP header that contains the IP address.
# Evaluated only when IPACL_ENABLE=TRUE and IPACL_SOURCE=HEADER.
#IPACL_HEADER_NAME=FORWARDED-FOR
# Determines how the IP address is parsed from a header value.
# Evaluated only when when IPACL_ENABLE=TRUE and IPACL_SOURCE=HEADER.
#IPACL_HEADER_VALUE_REGEX=\b\d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}\b
# Defines the white list of IP addresses allowed to access the application.
# Required and evaluated only when IPACL_ENABLE=TRUE.
#IPACL_ALLOW=192.168.1.50, 192.168.1.100-192.168.1.200
# Remote User IP Identification properties.
# Determines where the source IP is obtained for auditing and user
# identification.
#RUIPID_SOURCE=HEADER
# Indicates the HTTP header that contains the IP address.
# Evaluated only when RUIPID_SOURCE is set to HEADER.
#RUIPID_HEADER_NAME=FORWARDED-FOR
# Determines how the IP address is parsed from a header value.
# Evaluated only when RUIPID_SOURCE is set to HEADER.
#RUIPID_HEADER_VALUE_REGEX=\b\d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}\b
```

from:

```
C:\Lincoln\apps\webvdme\webapps\web_root\WEB-INF\classes\
template_webvdme.properties
```

to:

```
C:\Lincoln\apps\webvdme\webapps\web_root\WEB-INF\classes\
webvdme.properties
```

41. If you are on Empirica Signal 7.3.341 or earlier, update your `server.xml` file. Do the following:

- a. Navigate to `C:\Lincoln\apps\webvdme\conf`.
- b. Modify the `server.xml` file to include `useHttpOnly` in the `<context>` tag:

```
<Context path="/webvdme" docBase="web_root" debug="0"
privileged="true" useHttpOnly="true">
```

Reviewing ldap.properties

For LDAP configurations, the `ldap.properties` file stores LDAP configuration information. For information on editing the LDAP configuration, see the *Configuring Empirica Signal for Use with LDAP* topic in the Empirica Signal Help.

4.3 Set permissions

1. Navigate to `C:\Lincoln\apps\webvdme\bin`.
2. Locate the `C:\Lincoln\apps\webvdme\bin\set_permissions.bat` file.
3. Optionally grant permission to a Windows group of non-administrator users who may require limited access to the `\web_root` application directory. You may grant access to users who execute Signal Management and deploy data releases. For example, a non-administrator user who copies the data release notes to the `\web_root\relnotes` directory requires this limited access. Do the following:
 - a. Edit the `C:\Lincoln\apps\webvdme\bin\set_permissions.bat` file.
 - b. Locate the following lines:

```
REM -  
REM - Local Administrators group  
REM -  
REM SET ADMIN_GROUP=Signal Operators
```
 - c. Remove `REM` from the `REM SET ADMIN_GROUP` line.
 - d. Replace `Signal Operators` with the appropriate Windows user group that requires access.
 - e. Save your changes.
4. For Windows 2008, right-click on the `set_permissions.bat` file, and then select **Run as administrator**.
Or
For Windows 2003, double-click on the `set_permissions.bat` file.
6. If errors occur while `set_permissions.bat` is running, you must take ownership, recursively, of `C:\Lincoln\apps\webvdme` and `D:\Signal`, and then repeat step 5.
7. After `set_permissions.bat` has completed, when prompted, type any key.

4.4 Start the Empirica Signal Service

1. Right-click on the server's desktop My Computer icon and select **Manage**.
2. Expand the Services and Applications directory, and then click **Services**.

3. Right-click on the **webvdme** service and select **Start**.

Alternatively, type `net start webvdme` in a command prompt.

4. Right-click the **World Wide Web Publishing Service**, and click **Start**.

4.5 Verify the Empirica Signal Upgrade

For Upgrade Qualification (UQ) and Operational Qualification (OQ) testing, please refer to the `UQ_Test.doc` and `OQ_Test.doc` files supplied in the product ZIP file from the Oracle Software Delivery Cloud.

You can verify the Empirica Signal version upon successful upgrade on the About page:

1. Click **Settings**.

The Settings page appears.

2. Click **About**.

The About page appears.

Appendix A: Configure Signal for single sign-on (SSO) [OPTIONAL]

This section applies only to companies that plan to configure Signal for an SSO environment. This is advanced, optional functionality. For more information, see the *Empirica Signal Online Help*.

Before configuring Signal for SSO, you must install and configure Oracle Access Manager (OAM).

A.1 Configure Signal for SSO

1. Navigate to `C:\Lincoln\apps\webvdme\webapps\web_root\WEB-INF\classes`.

2. Open **webvdme.properties** and uncomment the properties:

```
sso.plugins=com.oracle.hsgbu.empirica.sso.EmpiricaSsoPlugin
sso.EmpiricaSsoPlugin.username.header=oam-remote-user
```

3. Optionally, enter an SSO logout URL for logout:

```
sso.EmpiricaSsoPlugin.logoutRedirectUrl=
```

4. Configure the session timeout to be longer than the SSO timeout.

The default Signal session timeout is 30 minutes. Modify **WEB-INF/web.xml** and **<session-timeout>** to be longer than the SSO session timeout.

5. Configure the Signal server for native login:

a. Edit **/Lincoln/apps/webvdme/conf/server.xml**.

b. Under **<Service name="Catalina">**, add

```
<Connector address="127.0.0.1" port="8080"
protocol="HTTP/1.1" connectionTimeout="20000"
redirectPort="8443" />
```

c. Enter an available port number on the server for the port attribute.

6. Restart the Signal service.

A.2 Validating SSO

1. Open a browser window and type the Signal URL.
2. At the login prompt, enter your SSO username and password.
The Signal home page appears.
3. On the Signal server, start a browser and enter the Signal URL using the port number for native login that you set in step 5 in [Configure Signal for SSO](#).
4. At the Signal login prompt, enter a Signal username that is a superuser and enter the password.
The Signal home page appears.