

# **Oracle® Enterprise Repository**

Upgrade Guide

10g Release 3 (10.3)

July 2009

Oracle Enterprise Repository Upgrade Guide, 10g Release 3 (10.3)

Copyright © 2008, 2009, Oracle. All rights reserved.

Primary Author: Vimika Dinesh

Contributing Author: Jeff Schieli, Sharon Fay, Dennis Chin, Scott Spieker, Atturu Chandra Prasad Reddy, Mike Wallace, Sashi Kolli

The Programs (which include both the software and documentation) contain proprietary information; they are provided under a license agreement containing restrictions on use and disclosure and are also protected by copyright, patent, and other intellectual and industrial property laws. Reverse engineering, disassembly, or decompilation of the Programs, except to the extent required to obtain interoperability with other independently created software or as specified by law, is prohibited.

The information contained in this document is subject to change without notice. If you find any problems in the documentation, please report them to us in writing. This document is not warranted to be error-free. Except as may be expressly permitted in your license agreement for these Programs, no part of these Programs may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose.

If the Programs are delivered to the United States Government or anyone licensing or using the Programs on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the Programs, including documentation and technical data, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement, and, to the extent applicable, the additional rights set forth in FAR 52.227-19, Commercial Computer Software--Restricted Rights (June 1987). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

The Programs are not intended for use in any nuclear, aviation, mass transit, medical, or other inherently dangerous applications. It shall be the licensee's responsibility to take all appropriate fail-safe, backup, redundancy and other measures to ensure the safe use of such applications if the Programs are used for such purposes, and we disclaim liability for any damages caused by such use of the Programs.

Oracle, JD Edwards, PeopleSoft, and Siebel are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

The Programs may provide links to Web sites and access to content, products, and services from third parties. Oracle is not responsible for the availability of, or any content provided on, third-party Web sites. You bear all risks associated with the use of such content. If you choose to purchase any products or services from a third party, the relationship is directly between you and the third party. Oracle is not responsible for: (a) the quality of third-party products or services; or (b) fulfilling any of the terms of the agreement with the third party, including delivery of products or services and warranty obligations related to purchased products or services. Oracle is not responsible for any loss or damage of any sort that you may incur from dealing with any third party.

# Oracle Enterprise Repository Upgrade Guide

## Table of Contents

### How to Upgrade from ALER 3.x to Oracle Enterprise Repository 10.3

- [ALER 3.x to Oracle Enterprise Repository 10.3 Upgrade Process Overview and Requirements](#)
- [ALER 3.x to Oracle Enterprise Repository 10.3 Tomcat Application Upgrade](#)
- [ALER 3.x to Oracle Enterprise Repository 10.3 WebLogic Server Application Upgrade](#)
- [ALER 3.x to Oracle Enterprise Repository 10.3 WebSphere Application Upgrade](#)

### How to Upgrade from ALER 2.6 to Oracle Enterprise Repository 10.3

- [ALER 2.6 to Oracle Enterprise Repository 10.3 Upgrade Process Overview and Requirements](#)

### How to Upgrade the ALER Workflows

- [Upgrade ALER Workflows](#)

## Post-Installation Tasks

# ALER 3.x to Oracle Enterprise Repository 10.3 Upgrade Process Overview and Requirements

This section provides an overview of the upgrade process tasks and requirements when upgrading from ALER version 3.0 and 3.0 RP1. Use the following links for additional instructions specific to your application server

- [Tomcat Application Upgrade](#)
- [WebLogic Server Application Upgrade](#)
- [WebSphere Application Upgrade](#)

**NOTE:** Core Engine is no longer supported.

## Upgrade Process

1. [Backup the existing ALER database](#)
2. Backup existing ALER application deployment:
  - It is recommended that you backup the entire <BEA\_HOME>. This backup will be necessary for some post-installation tasks, in addition to the application server upgrade.
  - For clustered deployments, each node of the cluster should be separately backed up as all nodes will need to have ALER upgraded.
3. [Verify required platforms and version information \(including JDBC Driver version support\)](#)
4. Uninstall ALER 3.0 or 3.0 RP1.
5. [Run the Oracle Enterprise Repository 10.3 product installer](#)
6. Restore the ALER backup files from the previous ALER deployment to the newly installed Oracle Enterprise Repository 10.3 version, including:
  - The ALER property files
    - If you are using LDAP, then confirm that the **Enable LDAP Login** option is set to **True** and verify the **LDAP Configuration** settings. If you are using SSO, then confirm that the **Enable Advanced Container Login** option is set to **True** and verify the **Advanced**

**Container Configuration** settings. If your LDAP or SSO configurations are not set correctly, then you will not be able to authenticate with the ALER application.

- Any custom files, such as custom home pages, images, XSLT templates, upload files, and any other customer-related files

7. Start your application server.

8. **Verify the application deployment using Oracle Enterprise Repository diagnostics**

**NOTE:** No database operations are required for this upgrade.

# Tomcat Application Upgrade

These instructions enable you to upgrade from ALER 3.0 and ALER 3.0 RP1 to Oracle Enterprise Repository 10.3 on Tomcat using the Oracle Products installation program.

## Prerequisites

- Please reference the [Supported Configurations](#) list for the most recent information regarding your application server version.
- Make sure that the application server is stopped.
- If the installed application server version is no longer supported by ALER, or the application server has been upgraded to a newer version, then perform the application upgrade instructions for the application server side, and then perform the database upgrade instructions.
- The directory where Tomcat is installed on your system is referenced in these instructions as `CATALINA_HOME`.
- The web application context that is being upgraded is referenced in these instructions as `CATALINA_HOME/webapps/aler`.
- The web content context that is being upgraded is referenced in these instructions as `CATALINA_HOME/webapps/aler-web`.
- Make sure that you backup the BPM Database.
- **Backup the existing ALER database**

## Create an `aler_temp` Directory

On the Tomcat server, create a directory named `aler_temp`. This directory will contain

the backup copies of the current ALER application. This will also serve as a temporary location for properties files, JDBC drivers, and any customized ALER items (`home.jsp` for example) that are required for the new application.

## Back Up the Current ALER Webapps

Navigate to the Tomcat installation location `CATALINA_HOME/webapps` and copy the existing *aler* and *aler-web* application directories into the `aler_temp` directory.

## Uninstall ALER 3.0./ALER3.0 RP1

Use the ALER 3.0 Installer to remove all components of the previous release. See [📘 Uninstalling the Software](#).

## Run the Oracle Products Installation Program

1. When prompted for the **Tomcat (Catalina) Home** directory, supply the directory where the previous deployment had been installed.
2. When prompted for the **Repository application name**, use the same application name that the previous deployment had used.
3. When prompted for the **Port number**, use the same port number that the previous deployment had used.
4. If you encounter a “One or more installation directories are not empty. Proceed with installation?” message, then select **YES**.

The installer will overwrite the existing deployment with the new files, thus preserving any additional custom files (such as an upload repository directory, custom home pages, etc.).

## Post-Installation Instructions

See [📘 Stand-alone Tomcat Installations](#)

## Restore the ALER Backup Files

1. Navigate to the `aler_temp` directory.
2. Copy the `aler_temp/aler/WEB-INF/classes/*.xml` files to the `CATALINA_HOME/webapps/aler/WEB-INF/classes` directory. This action overwrites the XML files that are a part of the new install.
3. Copy the `aler_temp/aler/WEB-INF/classes/*.properties` files to the `CATALINA_HOME/webapps/aler/WEB-INF/classes` directory. This action overwrites the XML files that are a part of the new install.
4. Copy the `aler_temp/aler/custom/home.jsp` (and/or all of the custom home pages) to the `CATALINA_HOME/webapps/aler/custom` directory. This overwrites the existing `home.jsp` file that is part of the new install. In addition, copy any custom images that were included in the custom home page(s) to the appropriate directory.
5. If you are using any custom Type icons, then copy the files from the `aler_temp/aler-web/images/tree/enterprise/asset` directory to the `CATALINA_HOME/webapps/aler-web/images/tree/enterprise/asset` directory.
6. If custom reports were created, then see the [Migrating Custom Reports](#) section.
7. Copy/Move the Upload Repository directory (normally found in `aler_temp/aler/custom/upload`) into the new `CATALINA_HOME/webapps/aler/custom` installation directory.

## Start Tomcat

**Important!** If you are using LDAP, then confirm that the **Enable LDAP Login** option is set to **True** and verify the **LDAP Configuration** settings. If you are using SSO, then confirm that the **Enable Advanced Container Login** option is set to **True** and verify the **Advanced Container Configuration** settings. If your LDAP or SSO configurations are not set correctly, then you will not be able to authenticate with the Oracle Enterprise Repository application.

1. Navigate to the `CATALINA_HOME/work` directory and delete the cache for the ALER 3.0 application.
2. Start the Tomcat application server.

## Test the Application



Oracle Enterprise Repository is now deployed. It is recommended that you test the installation through the use of the ALER Diagnostics page and the recommended tests are:

- Product Version Information
- Test Required Libraries
- Test Database

# WebLogic Server Application Upgrade

These instructions enable you to upgrade from ALER 3.0 and ALER 3.0 RP1 to Oracle Enterprise Repository 10.3 on WebLogic Server using the Oracle Products installation program.

## Prerequisites

- Oracle Enterprise Repository 10.3 requires WebLogic Server 10.3. If the currently installed ALER application is not running on the required version, then upgrade the application server.
- It is assumed that the ALER domain is installed within the default location of `BEA_HOME/user_projects/domains/<domain_name>/applications/aler`. If the ALER domain is installed in a different location, then make the appropriate adjustments to these instructions.
- Stop the WebLogic server before performing these steps.
- Make sure that you backup the BPM Database.
- **Backup the existing ALER database**

## Create ALER Temp Directories

- On WebLogic Server, create a directory named `aler_upgrade`. This directory is used to contain the ALER upgrade files.
- On WebLogic Server, create a directory named `aler_temp`. This directory is used to backup the current ALER application. This location is used as a temporary location for properties files, JDBC drivers, and any customized ALER items (`home.jsp`, for example) that are necessary for the new application.

## Back Up the Current ALER Webapps

1. Back-up the current ALER domain by navigating to the `BEA_HOME/user_projects/domains/<domain_name>/applications/aler` directory and copy the `aler-app` and `aler-web` directories to the *aler\_temp* directory.

**Note:** The Oracle Product Installer will create a new domain for the Oracle Enterprise Repository installation. Therefore, the existing domain will no longer be used.

## Remove Current ALER Installation Files

**Caution!** Perform this step only after completing backup of the directory, as described in [Back Up the Current ALER Installation](#).

If you wish to use the same domain name, then rename /remove the current ALER domain. For example, `BEA_HOME/user_projects/domains/<domain_name>` --> to `BEA_HOME/user_projects/domains/old_<domain_name>`.

## Uninstall ALER 3.0 / ALER 3.0 RP1.

Use the ALER 3.0 Installer to remove all components of the previous release. See [Uninstalling the Software](#)

## Run the Oracle Products Installation Program

1. When prompted for the **Oracle Home** directory, supply the directory where the WebLogic Server 10.3 is installed.
2. When prompted for the **Domain name**, select the same domain name that had been deployed previously.
3. When prompted for the **Fully qualified server name**, supply the fully qualified host name of the server that this domain is being installed on.
4. When prompted for the **Repository application name**, use the same application

name that the previous deployment had used.

5. When prompted for the **Port number**, use the same port number that the previous deployment had used.

## ALER Database Installation

1. When the installer prompts for database installation, choose the option to NOT configure the database.

## Post-Installation Instructions

See  [Post-Installation Installations](#).

## Restore the ALER Backup Files

1. Navigate to the `aler_temp` directory.
2. Copy the `aler_temp/aler-app/WEB-INF/classes/*.xml` files to the `BEA_HOME/user_projects/domains/<domain>/aler-app/WEB-INF/classes` directory. This action overwrites the XML files that are a part of the new install.
3. Copy the `aler_temp/aler-app/WEB-INF/classes/*.properties` files to the `BEA_HOME/user_projects/domains/<domain>/aler-app/WEB-INF/classes` directory. This action overwrites the `.properties` files that are a part of the new install. If a `.properties` file exists in the new deployment, and does not exist in the backup, then this may indicate a "Move Setting to Database" operation in the past. These `.properties` files should be deleted from the upgraded instance.
4. Copy the `aler_temp/aler/custom/home.jsp` (and/or all of the custom home pages) to the `BEA_HOME/user_projects/domains/<domain>/aler-app/custom` directory. This overwrites the existing `home.jsp` file that is part of the new install. In addition, copy any custom images that were included in the custom home page(s) to the appropriate directory.
5. If using any custom Type icons, copy the files from the `aler_temp/aler-web/images/tree/enterprise/asset` directory to the `BEA_HOME/user_projects/domains/<domain>/aler-web/images/tree/enterprise/asset` directory.

6. If custom reports were created, see the [Migrating Custom Reports](#) section.
7. Copy/Move the Upload Repository directory (normally found in `aler_temp/aler/custom/upload`) into the new `BEA_HOME/user_projects/domains/<domain>/aler-app/custom` installation directory.

## Start WebLogic Server

**Important!** If you are using LDAP, then confirm that the **Enable LDAP Login** option is set to **True** and verify the **LDAP Configuration** settings. If you are using SSO, then confirm that the **Enable Advanced Container Login** option is set to **True** and verify the **Advanced Container Configuration** settings. If your LDAP or SSO configurations are not set correctly, then you will not be able to authenticate with the Oracle Enterprise Repository application.

1. Delete the application server cache located within `ALER_DOMAIN/servers/AdminServer/tmp/WL_user/aler` directory. This directory contains compiled JSP pages that pertain to the old application deployment, which are no longer valid.
2. Start the application through the WebLogic Server Administration Console. Or, through command-line interface

```
BEA_HOME/user_projects/domains/<domain_name>/  
startWebLogic.cmd or *.sh
```

## Test the Application

Oracle Enterprise Repository 10.3 is now deployed. It is recommended that you test the installation through the use of the ALER Diagnostics page and the recommended tests are:

- Product Version Information
- Test Required Libraries
- Test Database

# WebSphere Application Upgrade

These instructions enable you to upgrade from ALER 3.0 and ALER 3.0 RP1 to Oracle Enterprise Repository 10.3 on WebSphere using the Oracle Products installation program. These instructions assume use of the Application Server profile type. For other profile types, modify the configuration according to your environment's requirements.

## Prerequisites

- Oracle Enterprise Repository requires WebSphere version 6.1.0.5. If the currently installed ALER application is not running on the required version, then upgrade the application server as appropriate.
- If the application server version on which the currently installed version of ALER is running is no longer supported, or if the application server has been upgraded to a new version, perform the application instructions for the application server side, and then perform the database upgrade instructions in this section.
- The current deployment directory containing the Oracle Enterprise Repository application is referred to as `aler_current` (this directory will normally be located in the following directory: `WAS_HOME/AppServer/profiles/AppSrv01/installedApps/localhostNode01Cell/installedApps/aler.ear`).
- Once the upgrade process is complete, the Oracle Enterprise Repository property files, XML files, and JDBC driver files will be located within a new `BEA_HOME/repository103/websphere` directory.
- **Backup the existing ALER database**

## Create an `aler_temp` Directory

On the WebSphere server, create a directory named `aler_temp`. This directory will contain backups of the current ALER application properties files, JDBC drivers, and any

customized ALER items (`home.jsp` for example) that are necessary for the new application.

## Back Up the Current ALER Webapps


1. Copy the contents of the current *ALER\_HOME* shared library directory contents to the *aler\_temp* directory. The *aler\_temp* directory should then contain all of the original ALER properties files, XML files, and your current JDBC driver JAR files.
2. If you have a customized ALER home page, navigate to the *aler\_current/aler-app.war/custom* directory and copy the *home.jsp* file to the *aler\_temp* directory. If you have used the Role or Department based home pages, then copy those files from the directory that is indicated within the *aler\_current/aler-app.war/WEB-INF/classes/homepages.xml* file.
3. Copy any custom images that are used in the custom home page file(s) to the *aler\_temp* directory.
4. If you have any custom Asset Type icons, navigate to the *aler\_current/aler-web.war/images/tree/enterprise/asset* directory and copy the images to the *aler\_temp* directory.
5. Optionally, copy all XSLT templates from the PDF Printing web-application to the *aler\_temp* directory. This web application is bundled directly into the core of the ALER product.
6. Copy any additional files or directories that were included or modified from the base ALER installation into the *aler\_temp* directory.

## Remove the Current ALER Installation Files

1. Start the WebSphere 6.1.x Administrative Console.
2. Expand the Applications -> Enterprise Applications folder and select the **ALER** check box.
3. Click **Stop**.

4. Select the **ALER** check Box.
5. Click **Uninstall**.
6. Select the **ALER** check Box.
7. Click **Remove**.
8. Repeat the above steps to remove the PDF Printing web-application (if present). This feature is now bundled within the ALER base application.
9. Save the changes to the Master Configuration when prompted.
10. Stop WebSphere Server.

## Uninstall ALER 3.0 / ALER 3.0 RP1.

Use the ALER 3.0 Installer to remove all components of the previous release.  
See  [Uninstalling the Software](#)

## Run the Oracle Products Installation Program

1. When prompted for the **Repository application name**, use the same application name that the previous deployment had used.
2. When prompted for the **Port number**, use the same port number that the previous deployment had used.

The Oracle Products installer will generate a deployable EAR file, thus allowing you to quickly and easily install the updated version of the application directly from the application server's file system. It will also create and deploy the Oracle Enterprise Repository Workflow application components appropriately.

## Install New Application Files



1. Start WebSphere Server.
2. Start the WebSphere Administrative Console.
3. Expand the Applications -> Enterprise Applications folder and click **Install**.
4. Choose the option to select a **Remote Filesystem** (this option is relative to the application server), browse to the `BEA_HOME/repository30/websphere` directory, and select the `aler.ear` file.
5. Select the **Prompt me only when additional information is required** option and click **Next** to continue.
6. On the Select Installation Options page, click **Next** to continue after making the appropriate changes.
7. On the Map modules to servers page, click **Next** to continue after making the appropriate changes.
8. On the Map virtual hosts for Web modules page, click **Next** after making the appropriate changes.
9. On the Deployment summary page, click **Finish** to deploy the EAR file.

**Note:** This process may take several minutes.

10. After the installation is finished, the **Application installed successfully** message is displayed.
11. Click **Save to Master Configuration** when prompted.
12. Stop WebSphere Server.

## Restore the Backup ALER Files

These steps will modify files deployed by the newly installed version of Oracle Enterprise Repository with files from the backup and the previously installed version.

1. If you have a customized ALER home page(s), use the **Update** feature of WebSphere to replace the deployed *custom/home.jsp* file with the copy of *home.jsp* in the backup.
2. Copy any custom images that may be part of the *home.jsp* file to the appropriate directory.
3. Use the **Update** feature to replace the *aler\_current/aler-web.war/images/tree/enterprise/asset* directory.
4. If custom reports were created, then see the **Migrating Custom Reports** section.
5. If additional files were included or modified in the original ALER install, consult Oracle Technical Support for assistance with inclusion of these additions into ALER 3.0.
6. Copy all previous property files from the *aler\_temp* to the *BEA\_HOME/repository30/websphere* directory.
7. Copy all previous XML files from the *aler\_temp* to the *BEA\_HOME/repository30/websphere* directory.
8. Copy the currently supported JDBC Driver files into the *BEA\_HOME/repository30/websphere* directory.

## Start WebSphere

**Important!** If you are using LDAP, then confirm that the **Enable LDAP Login** option is set to **True** and verify the **LDAP Configuration** settings. If you are using SSO, then confirm that the **Enable Advanced Container Login** option is set to **True** and verify the **Advanced Container Configuration** settings. If your LDAP or SSO configurations are not set correctly, then you will not be able to authenticate with the Oracle Enterprise Repository application.

1. Navigate to the *WebSphere\_HOME/AppServer/temp/* directory and delete the cache for the Oracle Enterprise Repository application.
2. Restart WebSphere.

## Test the Application

Oracle Enterprise Repository is now deployed. It is recommended that you test the installation through the use of the ALER Diagnostics page and the recommended tests are:

- Product Version Information
- Test Required Libraries
- Test Database

# ALER 2.6 to Oracle Enterprise Repository 10.3 Upgrade Process Overview and Requirements

This section provides an overview of the upgrade process tasks and requirements when upgrading from ALER 2.6 to Oracle Enterprise Repository 10.3.

## Upgrade Process Overview

1. Upgrade ALER 2.6 to ALER 3.0.1 Advanced. Use the ALER 2.6 - ALER v3.0.1 upgrade guide for specific instructions.
  - o The v3.0.1 upgrade is available at: [http://edelivery.oracle.com/EPD/WelcomePage/get\\_form](http://edelivery.oracle.com/EPD/WelcomePage/get_form). Follow the instructions in this page to download the ALER v3.0.1 upgrade. Alternatively, you could also download from this OTN link - <http://www.oracle.com/technologies/soa/enterprise-repository.html>.

**Note:** An upgrade from ALER v2.6 to v10.3 is NOT a valid upgrade. Thus, users must upgrade through v3.0.1.

2. Confirm successful login into the running ALER v3.0.1. This is required due to licensing changes in v3.0.1 that 10.3 requires. Customers installing v10.3 receive these changes with their base data.
3. Shutdown the application server.
4. Follow the instructions, specific to your application server, to upgrade v3.0.1 to v10.3. Please note that there is no database upgrade requirement for these versions.

# Upgrade ALER Workflows for use with Oracle Enterprise Repository

- Existing workflow processes will continue to function with slight modifications to the Oracle Enterprise Repository configuration files. It is highly recommended that the currently delivered workflows be deployed instead of using the versions delivered in a previous release.
- The Oracle Enterprise Repository version 10.3 contains new and updated workflows that require the use of Oracle BPM Enterprise. Former versions of the Enterprise Repository (ALER version 3.0.0 and 3.0 RP1) had been delivered with a runtime edition of ALBPM version 5.7. The currently delivered version of the workflows are incompatible with the ALBPM 5.7 BPM engine and therefore will require a new installation of OBPM Enterprise version 10.3.

## Configuring Oracle Enterprise Repository to use Existing ALBPM 5.7

Oracle Enterprise Repository is configured for use with OBPM out of the box. To reconfigure the Enterprise Repository to utilize ALBPM 5.7, several changes to the `WEB-INF/classes/EndPointEventSubscription.xml` file are required. The following elements will need to be modified



- Uncomment the `<sub:uri>fuegoServices/ws/StatusChangeEndpointServiceListener</sub:uri>` line. This configuration is used for ALBPM 5.7.
- Comment the `<sub:uri>al bpmServices/aler_engine/ws/StatusChangeEndpointServiceListener</sub:uri>` line. This configuration is used for OBPM 10.3.
- Edit the `<sub:password>aler_workflow_pass</sub:password>` line to be `<sub:password>aler_workflow_user</sub:password>`.
- Edit the `<sub:host>localhost</sub:host>` line to contain the IP address, or the fully qualified host name of the server running the ALBPM 5.7 services.

## Upgrading Existing ALER Workflows

An installation of the workflows within OBPM 10.3 is covered in the following guide: See [Installation Guide](#). These workflows contain all of the ALER 3.0 RP1 workflow processes in addition to new processes surrounding UDDI operations. If customized workflows have been deployed for use with ALER, then it is recommended that these customizations be upgraded using OBPM 10.3 studio.

**Note:** The deployment of custom or customized workflows is outside the scope of this document.

# Post-Installation Tasks

- **Migrating Custom Reports**
- **Other Customizations**
- **Remove Previous Version of Eclipse Plug-in on Client Workstations**
-  [Install WorkSpace Studio on Client Workstations](#)
-  [Import the AquaLogic Solution Package for Assembly Models](#)
- **Verify the Value of the Assets-In-Progress Setting**
- **Using the Diagnostics Testing Tool**
  - **Navigating the Diagnostic Tool**
  - **Checking Product Version Information**
  - **Test Servlet Functionality**
  - **Test Required Libraries**
  - **Test Database Connectivity**
  - **List System Paths**
  - **Run Pre-compile Servlet**
  - **Other Features**
- **Using an X Windows Server with ALER Reporting Engine**
  - **Granting Access to an X Windows Server**
  - **Setting DISPLAY Variable**
  - **Other Notes**
  - **X Windows Alternatives**

# Migrating Custom Reports

## Editing the CustomReports.xml file

1. Navigate to the `./WEB-INF/config/reports/` directory on the application server.
2. Open the `customreports.xml` file in a text editor.
3. Edit the meta-tags for **report name**, **display name**, **description**, and **external** to reference a custom report.



## Overview

An installation of ALER v3.x may have several customizations that are unique to that installation. These are not limited to, but may include:

- Open API programs written against the REX interface
- BPM Workflows
- Endpoint Event Subscriptions
- Eventing for WebSphere Application Server
- Clustering
  - See [Move Settings to Database](#)
- Application Properties Moved to Database

## General Instructions

For all of the customizations mentioned in the [Overview](#) section, the customization should be repeated on Oracle Enterprise Repository 10.3, following the successful upgrade.

## Move Settings to Database

- As part of clustering configuration and some other customizations, the **Move Settings to Database** option in Oracle Enterprise Repository copies the System Settings out of the property files in to the Database. During the Upgrade process some property files have been restored to their default configuration. These should be removed from the upgraded Oracle Enterprise Repository instance again.

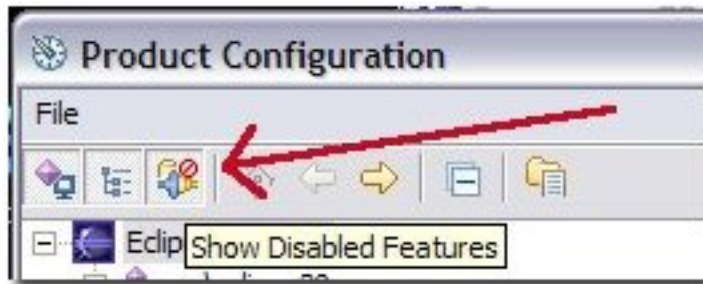
See the **Move Application Properties to the Database** section in the [Oracle Enterprise Repository Clustering Guide](#) for more information.

**Note:** If these files listed in the [Clustering Guide](#) exist in the backup of the *WEB-INF/classes* directory, then do not remove the file. We need to remove those files that do not

exist in the backup and were delivered by the upgrade process.

## ALER Legacy Eclipse Plug-in Uninstallation

1. In Eclipse, click **Help**.
2. Click **Software Updates**.
3. Click **Manage Configuration**.
4. Select **Show Disabled Features**.



5. Select the **AquaLogic Enterprise Repository** feature.
6. Click **Disable Feature**.

Note: Unless the feature is properly disabled prior to uninstallation, some AquaLogic Enterprise Repository files may remain in the Eclipse plugins directory. These files must be manually deleted.

7. Follow the prompts to restart Eclipse.
8. After restart, select **Manage Configuration** in the **Help** menu.
9. Select the **AquaLogic Enterprise Repository** feature.
10. Select **Uninstall**.
11. Follow the prompts to restart Eclipse.

## Verifying the Assets in Progress Property Value

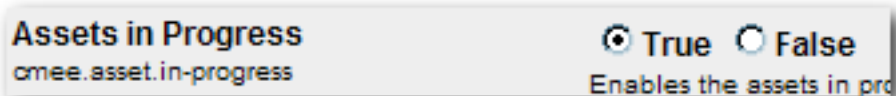
Two properties must be enabled in order to activate **Assets in Progress**. This procedure is performed on the Oracle Enterprise Repository **Admin** screen. This property **MUST** be enabled when using the WorkSpace Studio with the Oracle Enterprise Repository product. (For more information on using WorkSpace Studio with Oracle Enterprise Repository, refer to the [Prerequisites for Using WorkSpace Studio With Oracle Enterprise Repository](#) instructions.

If you are upgrading an existing instance of ALER and the Assets In Progress feature had not been enabled, then this feature should be disabled **PRIOR** to any users accessing the instance and modifying assets records.

## Enabling Assets in Progress

1. Click **System Settings**.
2. Click **General Settings** in the **System Settings** section.
3. Enter the property `cmee.asset.in-progress` in the **Enable New Property** text box.
4. Click **Enable**.

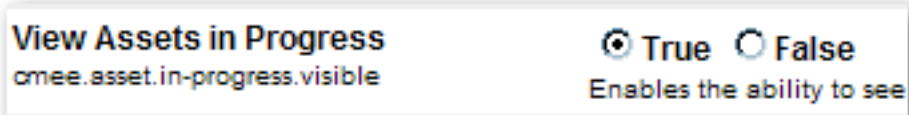
**Assets in Progress** appears in the list of properties in the main pane.



5. Make sure the property is set to **True**.
6. Click **Save**.

7. Enter the property `cmee.asset.in-progress.visible` in the **Enable New Property** text box.
8. Click **Enable**.

**View Assets in Progress** appears in the list of properties in the main pane.



9. Make sure the property is set to **True**.
10. Click **Save**.

The **Registration Status** drop-down menu will now appear in the **Search** section on the Oracle Enterprise Repository **Assets** screen.

## Disabling Assets in Progress

This procedure is performed on the Oracle Enterprise Repository **Admin** screen.

**Note:** Disabling the **Assets in Progress** feature prevents **Asset Editor** access to assets in the **Unsubmitted** state. Assets in the **Submitted - Pending Review** state will remain accessible to the **Asset Editor**. Before disabling **Assets in Progress** it is recommended that all necessary assets be promoted from **Unsubmitted** to **Submitted - Pending Review**.

1. Click **System Settings**.
2. Click **General Settings** in the **System Settings** section.
3. Locate **Assets in Progress** in the list of properties in the main pane.
4. Set the **Assets in Progress** property to **False**.
5. Locate **View Assets in Progress** in the list of properties in the main pane.

6. Set the **View Assets in Progress** property to **False**.
7. Click **Save**.

# Utilizing the Diagnostics Testing Tool

The **Diagnostics** tool allows testing and troubleshooting of certain aspects of Oracle Enterprise Repository application.

## Launching the Diagnostic Tool

To launch the Oracle Enterprise Repository **Diagnostics** tool, navigate to `http://host_name/application_name/diag/index.jsp`

Diag Home  
BEA AquaLogic Enterprise  
Repository

Generic Web App  
Installation Tests  
Tools

BEA AquaLogic Enterprise  
Repository Tests  
Runtime - Configuration  
Runtime - Assets  
Runtime - Security

Optional Tests  
SOAP Services  
Logging Options

Import/Export System  
List Import/Export Jobs

RBAC LockBroker Status  
Inspect LockBroker Status

Clustering  
Status

BEA AquaLogic Enterprise Repository  
Diagnostics

These tests are designed to be a diagnostic starting point for your BEA AquaLogic Enterprise Repository installation. You may be asked to perform some of these tests by BEA Support, however, we do not recommend using these tools **without guidance** from BEA Support.

Diagnostic logging is presently ON.

## Navigating the Diagnostics Tool

In addition to the **Diag Home** and **Oracle Enterprise Repository** links, the left sidebar of the **Diagnostics** tool (the gray area in the image above) includes links to several tests that can be run to check your installation of Oracle Enterprise Repository. Click any of these links to display the available tests in the main pane of the **Diagnostics** tool.

- **Generic Web App**

- Installation Tests

- *Product Version Information*

- Provides information on the installed version of the Oracle Enterprise Repository, the version of the installed Oracle Enterprise Repository database, upgrade dates, and the maintenance mode setting for the database.

- *Snoop Servlet*

- Provides an output listing of all cookies, headers, CGI-Variables, Servlet Context Attributes, Session information and Session values set as a part of the request to the application server.

- *Test Required Libraries*

- Provides information about the application server's configuration regarding required JAR library files, installed XML parsers, and the presence of the minimally required Oracle Enterprise Repository properties files.

- *Run Active Diagnostic Tests*

- Runs a JUnit test against the installed Oracle Enterprise Repository application. Many of these tests are required to allow Oracle Enterprise Repository to build and parse XML data.

- *Test Database*

- Provides insight into the JDBC driver functionality, including the number of database side functions that are expected to be supported. Also tests the connection string set in the `database.properties` file, provides additional information regarding the version of the JDBC driver, and may also indicate deficiencies within the database tables.

- *List System Paths*

- Lists the pathways (local and absolute URL's) configured within the `cmee.properties` file as well as those stored within the database. Also helps to indicate why some parts of the application deployment function while others do not (such as images not loading).



Installation Tests	
Product Version Information	Displays internal product version, database schema version, and information about the most recent upgrade/install performed to BEA AquaLogic Enterprise Repository.
Snoop servlet	Tests servlet engine response, shows parameters passed from web client to server.
Test Required Libraries	Tests libraries, property files and system properties essential to proper functionality.
Run Active Diagnostic Tests	Performs tests against common application and environment troublespots.
Test Database	Tests database container access, availability of JDBC driver and presence of important BEA AquaLogic Enterprise Repository data tables.
List System Paths	Lists all BEA AquaLogic Enterprise Repository paths. Similar to 'List Enabled System Settings' below, but limited to world-visible paths and therefore does not require login.
Test Browser Redirection Compatibility	Via Response Code 302 - to standard URL Via Response Code 302 - to local OS file

- Tools

- *JSP Precompiler*

- Forces the application server to perform an immediate JIT compile of JSP pages within the Oracle Enterprise Repository application. This process greatly improves the performance of page loads if performed after each application server restart.

- *Encrypt Strings for Passwords*

- Performs a Hash on a clear-text password string supplied in the text field. This feature is used for encrypting passwords to be stored within application properties files. This tool should not be used to encrypt user passwords. Please contact Oracle Support for the proper procedure to update a password in the database.

## Tools

<a href="#">JSP Precompiler</a>	Pre-compiles most JSPs in the system for speedier first time access. This is likely to take quite awhile (20-30 minutes), and generates false errors as JSPs are loaded without the proper parameters passed. This is OK and expected.
<a href="#">Encrypt Strings for passwords</a>	Converts strings to encrypted passwords for use in misc. places in the system (see documentation for more details)

### • Oracle Enterprise Repository Repository Tests

- Runtime - Configuration
  - *List Enabled System Settings*
    - Lists all values set in the Oracle Enterprise Repository database as well as those set in properties files.
  - *Edit System Paths*
    - Allows an administrator to make permanent changes to the `cmee.properties` file on the application server.

Runtime - Configuration	
These tests require either a BEA AquaLogic Enterprise Repository login cookie to be set on your browser, or for you to have been logged into BEA AquaLogic Enterprise Repository recently with your browser enabled to allow session cookies.	
<a href="#">List Enabled System Settings</a>	Lists all enabled BEA AquaLogic Enterprise Repository settings. Values that deviate from the default are colored blue.
<a href="#">Edit System Paths</a>	Edits BEA AquaLogic Enterprise Repository paths. This can be used to bootstrap a new installation.
<a href="#">Custom Home Pages</a>	Current Home Page selection Criteria

- Runtime - Assets
  - *List Types*
    - Produces XML output that describes all Asset Types stored within the Oracle Enterprise Repository database.
  - *Edit Asset Custom Data*
    - Allows a registrar to modify XML data contained within an asset in the event that an asset's metadata is otherwise uneditable. **Do not use this tool unless specifically directed by Oracle Support personnel.**

- *Get XML: Show Type ID*
  - Produces the XML description of a specific Asset Type based on the unique ID of the Asset Type record.
- *Get XML: Type ID As String*
  - Produces the XML description of a specific Asset Type based on the unique ID of the Asset Type record as one continuous string.
- *Get XML: Type XML Schema*
  - This tool produces the XML schema of a specific Asset Type based on the unique ID of the Asset Type record.
- *Get XML: Type XML Schema as String*
  - This tool produces the XML schema of a specific Asset Type based on the unique ID of the Asset Type record as one continuous string.
- *Get XML: Asset ID*
  - Produces the XML data of an Asset based on the unique ID of the Asset.
  - The **include extended metadata** option produces additional information related to Policies and other data.
- *Get XML: Asset ID as String*
  - Produces the XML data of an Asset based on the unique ID of the Asset as one continuous string.

## Runtime - Assets

These tests require either a BEA AquaLogic Enterprise Repository login cookie to be set on your browser, or for you to have been logged into BEA AquaLogic Enterprise Repository recently with your browser enabled to allow session cookies.

<a href="#">List Types</a>	Lists all types in the system. The ID's provided here are useful in the next test.
<a href="#">Edit Asset Custom Data</a>	Allows editing the custom data XML for an asset. This is useful when fixing invalid xml that is preventing an asset from loading.
<a href="#">Search</a>	Submits a search using criteria formatted in XML.

## Get XML

Show Type ID: <input type="text"/> <a href="#">Editor</a> <a href="#">Show</a>	Displays the XML for the specified type id. You may need to right click and select View Source to see the XML.
Show Type ID as String: <input type="text"/> <a href="#">Editor</a> <a href="#">Show</a>	Displays the XML as a single string for the specified type id.
Show Type XML Schema: <input type="text"/> <a href="#">Show</a>	Displays the XML Schema for an type. You may need to right click and select View Source to see the XML.
Show Type XML Schema as String: <input type="text"/> <a href="#">Show</a>	Displays the XML Schema for an type as a single string for the specified type.
Show Asset ID: <input type="text"/> <input type="checkbox"/> Include extended metadata. <a href="#">Show</a>	Displays the XML for the specified asset id. You may need to right click and select View Source to see the XML.
Show Asset ID as String: <input type="text"/> <a href="#">Show</a>	Displays the XML as a single string for the specified asset id.
Show Asset ID extended metadata entries: <input type="text"/> <a href="#">Show</a>	Itemizes the extended metadata entries for the specified asset id.

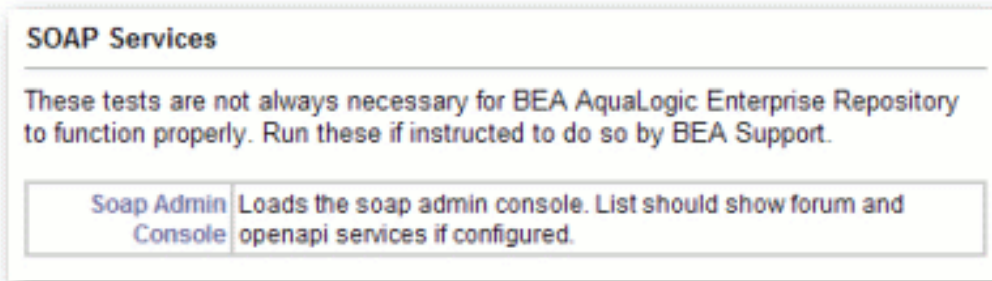
## ○ Runtime - Security

## Runtime - Security

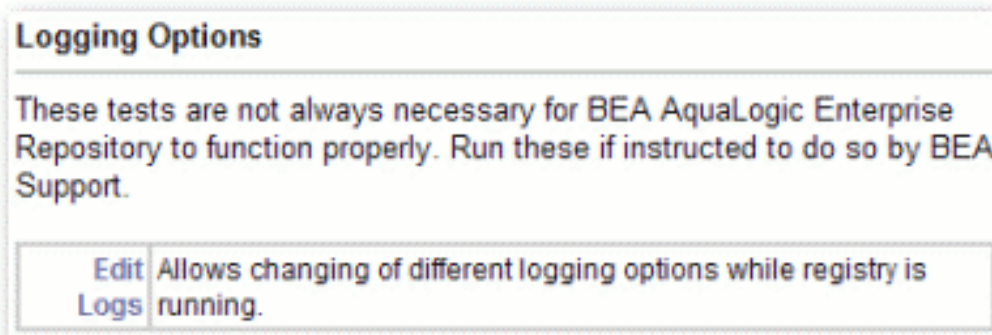
These tests require either a BEA AquaLogic Enterprise Repository login cookie to be set on your browser, or for you to have been logged into BEA AquaLogic Enterprise Repository recently with your browser enabled to allow session cookies.

- [List Auth Tokens](#)
- [List Custom Access Settings](#)

- **Optional Tests**
  - SOAP Services



- *Logging Options*



- To access the Oracle Enterprise Repository login page, click the **Oracle Enterprise Repository** link in the sidebar of the **Diagnostics** page.
- To activate the debugging mode for the current session, click the **turning logging on** link in the main pane.

## Checking Product Version Information

1. Click **Installation Tests** under **Generic Web App**.
2. Click **Product Version Information** in the main pane.

A new browser window opens to display information on the internal product version, database schema version, and information about the most recent upgrade/install.



## BEA AquaLogic Enterprise Repository Version Information

Product Version: 2.5.0

Database Version: 14.0.0

BEA AquaLogic Enterprise Repository database version properly matches the running instance of ALER.

### Information From Database:

Database Installed From: 5.2.0

Database Version: 14.0.0

Database Date: 2006-06-02 19:06:20.0

Upgrade Maintenance Mode: off

### Steps of last upgrade:

Step	Start Date	End Date	Required?
Disable/drop Foreign Keys	2006-06-02 19:06:20.0	2006-06-02 19:06:20.0	yes
Pre-Data Schema Changes	2006-06-02 19:06:20.0	2006-06-02 19:06:20.0	yes
Data Migration	2006-06-02 19:06:20.0	2006-06-02 19:06:20.0	yes
Post-Data Schema Changes	2006-06-02 19:06:20.0	2006-06-02 19:06:20.0	yes
Java Based Migration	2006-06-02 19:06:22.0	2006-06-02 19:06:23.0	yes
Deprecation Scripts	2006-06-02 19:06:23.0	2006-06-02 19:06:23.0	no

## Test Servlet Functionality

1. Click **Installation Tests** under **Generic Web App**.
2. Click **Snoop Servlet** in the main pane.

A new browser window opens to display information on the parameters passed from the Web client to server.

# Snoop Servlet - Request/Client Information

## Requested URL:

http://qa-app2.flashline.com:3080/flashline/Snoop

## Request Information:

Request method	GET
Request URI	/flashline/Snoop
Request protocol	HTTP/1.1
Servlet path	/Snoop
Path info	<none>

## Test Required Libraries

1. Click **Installation Tests** under **Generic Web App**.
2. Click **Test Required Libraries** in the main pane.

A new browser window opens to display information on the property files and system properties essential to proper functionality.

# BEA AquaLogic Enterprise Repository Library Diagnostic

## Examining webapp configuration

### Needed Components

Found BEA AquaLogic Enterprise Repository

(com.flashline.cmee.jsp.CMEESession)

at /usr/local/build-jakarta-tomcat-5.0.25/webapps/flashline/WEB-INF/lib/cmee.jar

Found BEA AquaLogic Enterprise Repository DBaccess

(com.flashline.db.DBconnection)

at /usr/local/build-jakarta-tomcat-5.0.25/webapps/flashline/WEB-INF/lib/dbaccess.jar

Found Apache Xerces XML Parser

(org.apache.xerces.parsers.DOMParser)

## Test Database Connectivity

1. Click **Installation Tests** under **Generic Web App**.
2. Click **Test Database** in the main pane.

A new browser window opens to display information on container access, the availability of JDBC drivers and the presence of important Oracle Enterprise Repository data tables.



Self test: com.flashline.cmee.servlet.diag.Database

JDBC Driver      oracle.jdbc.driver.OracleDriver

URL              jdbc:oracle:thin:@qa-app2.flashline.com:1521:sid1

Username        cmee50qa1

Password        (private)

Driver Name     Oracle JDBC driver

Driver Version   9.2.0.5.0

String Functions   ASCII,CHAR,CONCAT,LCASE,LENGTH,LTRIM,REPLA

Date Functions    CURDATE,CURTIME,DAYOFMONTH,HOUR,MINUTE

Numeric Functions ABS,ACOS,ASIN,ATAN,ATAN2,CEILING,COS,EXP,FI

System Functions   USER

SQL: select count(\*) as bad\_editor\_xmls from assetypeeditorxmls where editorx

BAD_EDITOR_XMLS
0

## List System Paths

1. Click **Installation Tests** under **Generic Web App**.
2. Click **List System Paths** in the main pane.

A new browser window opens to display all Oracle Enterprise Repository paths.

```
cmee.server.paths.image=http://qa-app2.flashline.com:3080/flashline-web/images
cmee.server.paths.jsp-tool=http://qa-app2.flashline.com:3080/flashline-
web/webstart
cmee.server.paths.jsp=http://qa-app2.flashline.com:3080/flashline
cmee.server.paths.resource=http://qa-app2.flashline.com:3080/flashline-web
cmee.server.paths.servlet=http://qa-app2.flashline.com:3080/flashline
cmee.server.paths.upload=/usr/local/build-jakarta-tomcat-
5.0.25/webapps/flashline/WEB-INF/upload
cmee.server.paths.upload-registrar=\\qa-app2\upload-autobuild\
cmee.server.paths.upload-repository=
```

## Run Pre-Compile Servlet

1. Click **Tools** under **Generic Web App**.
2. Click **JSP Precompiler** in the main pane.

A new browser window opens to display a list of system JSPs that have been pre-compiled for speedier first time access.

**Base URL: http://qa-app2.flashline.com:3080/flashline/**

**Compiling jsps using jsplist.txt...**

```
Starting : http://qa-app2.flashline.com:3080/flashline/c
Finishing: http://qa-app2.flashline.com:3080/flashline/c
Starting : http://qa-app2.flashline.com:3080/flashline/i
Finishing: http://qa-app2.flashline.com:3080/flashline/i
Starting : http://qa-app2.flashline.com:3080/flashline/c
SKIPPED: http://qa-app2.flashline.com:3080/flashline/cme
Finishing: http://qa-app2.flashline.com:3080/flashline/c
Starting : http://qa-app2.flashline.com:3080/flashline/c
```

- **Note:**
  - This servlet produces errors within the error log; please reset logs before

starting the application server.

## Other Features

Additional **Diagnostics** functionality includes:

- Testing browser redirection compatibility to both a standard URL or local file.
- Listing all enabled Oracle Enterprise Repository Settings.
- Listing all Types in the system.
- Displaying XML for a specific Type (both editor and viewer).
- Displaying ml for a specific asset.
- Current `authtokens` and custom access settings.
- Clustering Status shows a list of all nodes in the cluster.
- SOAP admin console.

You may be instructed by Oracle Support to use these optional features as a troubleshooting measure.

# Using an X Windows Server with the Oracle Enterprise Repository Reporting Engine

When running on Unix/Linux, the reporting engine in Oracle Enterprise Repository requires a connection to an X Windows server in order to generate reports. This is a functional requirement of the Java JRE, which creates a handle to the graphics environment to determine font sizes and perform other graphics-related operations. On Windows platforms, availability of the graphics environment is a given, but on Linux and other Unix platforms, it is not always present. The X Windows server can run on either the same machine as the application server or on another machine, provided that proper access is granted to use the X Windows environment from the application server.

Two steps are necessary for use (unless the application server is started while logged into the X Windows environment). The X Windows security model generally only allows applications to use the environment, if they are started within the X Windows environment.

## Granting Access to an X Windows Server

### Granting Temporary Access to an X Windows server

1. On a local machine, to allow a background server process access to the X Windows server, perform the following command in an xterm window (or equivalent):
  - `xhost +<user>`
    - (Where <user> is the username of the application server process.)
2. To allow the application to connect to a remote server, perform the following command on the remote X Windows server in an xterm window (or equivalent):
  - `xhost +<ip>`
    - (Where <ip> is the IP address of the application server.)

## Granting Permanent Access to an X Windows server

To configure X Server access to selected hosts follow these three steps:

1. Search through all files in the directory `/usr/lib/X11/xdm` (or in `/etc/X11/xdm`) for occurrences of the command `"xhost +"` or `"/usr/bin/X11/xhost +"`.
2. Remove or comment out all such lines.
3. Create or edit the file `"/etc/Xn.hosts"` where 'n' is the display number of the server on the local host, normally 0, as in `"/etc/X0.hosts"`.
4. To deny all X access to your system, the file `/etc/X0.hosts` will contain a single character, `"-"`.
5. To grant access to hosts `"localhost"`, `"newhost.gov"` and `"secondhost.gov"` and no other hosts the file `/etc/X0.hosts` will consist of:

```
-  
+localhost  
+newhost.gov  
+secondhost.gov
```

## Setting DISPLAY Variable

1. On the application server, preferably in the application server software's startup script, add the following (assumes an `sh` or `sh` derivative shell):
  - `DISPLAY=<xwindows host>:0.0 export DISPLAY,`
  - (Where `<xwindows host>` is the name or IP of the remote X Windows server.)
    - (`localhost` may be used for a server running on the same machine)
2. Restart the application server.

## Other Notes

- While the reporting engine does not require the X Windows server to run on the application server itself, the X11 client libraries must be accessible on the application server to reference the graphics toolkit functions.

- In order to test the authorization and setting of the `DISPLAY` variable, launch an application, such as **xterm** or **xeyes** from the application server and verify that the application appears properly on the remote X Windows desktop.
- If you experience authorization problems with the application server connecting to the remote X Windows server, try "`xhost +`" to allow all remote client access to the X Windows server.

## X Windows Alternatives

For installations where X Windows is not a feasible option within the enterprise architecture, or where servers are racked together within a data center and run headless. Since each of these options simulates an X server, the X Windows installation instructions above regarding setting the appropriate *DISPLAY* environment variable and the use of the *xhost* commands also apply. Two options have proven to be effective and compliant within many environments:

- **XVfb** - X Virtual Frame Buffer - An alternative to a fully fledged X Windows installation.
- **VNC Server** - Again an effective alternative with added benefits of allowing a remote console connection to the hosting machine if configured properly.
  - One of the more common misconfigurations with the VNC Server option is how a firewall will block a listening port for either of these services. For example, `vncserver` by default will listen on TCP port 5901 which would correspond with a *DISPLAY=:1.0*. A `vncserver` process configured to run on *DISPLAY=:11.0* the process would be listening on TCP port 5911, etc.
  - The very minimal installation of `vncserver` is all that is required to allow the functionality of the Oracle Enterprise Repository reporting engine.