

**ORACLE<sup>®</sup>**  

---

**EnterpriseTrack**  
**INSTANTIS**

**Installation Guide**  
**Release 8.6**

September 2013

# Legal Notices

---

Oracle Primavera Oracle Instantis EnterpriseTrack Installation Guide

Copyright © 2000, 2013, Oracle and/or its affiliates. All rights reserved.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

**U.S. GOVERNMENT END USERS:** Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate failsafe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

This software or hardware and documentation may provide access to or information on content, products and services from third-parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

# Contents

---

<b>Legal Notices</b> .....	<b>2</b>
<b>Introduction</b> .....	<b>5</b>
System Requirements.....	5
Prerequisites.....	5
Downloading EnterpriseTrack .....	5
<b>Installing EnterpriseTrack on Microsoft Windows</b> .....	<b>7</b>
Windows Prerequisites .....	7
Step 1: Configuring the Database .....	7
Configuring an Oracle Database .....	8
Recommendations for Configuring an Oracle Database.....	8
Installing the Oracle Database Client .....	9
Configuring Database Files and Disk Layout .....	9
Creating an ETRACK Database .....	9
Creating an Oracle Text Index.....	10
Configuring a Microsoft SQL Server Database .....	10
Installing the Microsoft JDBC Driver.....	10
Configuring Database Files and Disk Layout .....	10
Creating an ETRACK Database .....	11
Installing Full-Text Search Capabilities .....	11
Creating a Full-Text Catalog.....	11
Indexing PDF Files .....	12
Step 2: Configuring WebLogic for EnterpriseTrack on Windows .....	12
Creating a WebLogic Domain.....	12
Starting the WebLogic Admin Server.....	12
Stopping the WebLogic Admin Server .....	13
Step 3: Installing Oracle HTTP Server (OHS) .....	13
Configuring Oracle HTTP Server (OHS).....	13
Step 4: Installing a Secure Socket Layer (SSL) Certificate.....	14
Step 5: Configuring SiteWand.....	14
Step 6: Installing SiteWand on Windows.....	15
Step 7: Oracle Database Setup Follow-up Steps .....	15
Step 8: Setting the Daily Job Run Password.....	16
Step 9: SiteWand Procedures.....	16
Starting SiteWand .....	16
Stopping SiteWand.....	16
Restarting SiteWand .....	17
Changing the Database Password of ETRACK Account .....	17
Uninstalling SiteWand .....	17

---

<b>Installing EnterpriseTrack on Linux.....</b>	<b>19</b>
Linux Prerequisites .....	19
Step 1: Installing and Configuring Oracle Database.....	19
Recommendations for Configuring an Oracle Database.....	19
Installing the Oracle Database Client .....	21
Configuring Database Files and Disk Layout.....	21
Creating an ETRACK Database .....	21
Creating an Oracle Text Index.....	21
Step 2: Configuring SiteWand.....	22
Extracting the SiteWand File .....	22
Modifying the Site.Properties File .....	22
Step 3: Installing SiteWand.....	23
Step 4: Oracle Database Setup Follow-up Steps .....	24
Step 5: Installing Secure Socket Layer (SSL) on Linux .....	24
Step 6: Setting the Daily Job Run Password.....	24
Step 7: SiteWand Procedures.....	25
Starting SiteWand on Linux .....	25
Stopping SiteWand on Linux .....	25
Restarting SiteWand on Linux .....	26
Restarting Apache as ROOT on Linux.....	26
Restarting TomCat as a Regular User.....	26
Changing the Database Password of ETRACK Account .....	26
Uninstalling SiteWand .....	26
<b>Accessing and Customizing EnterpriseTrack.....</b>	<b>27</b>
Accessing the EnterpriseTrack Login Page.....	27
Accessing the SiteWand Login Page .....	27
Enabling Organization-Specific User Interface Components in EnterpriseTrack .....	28
Configuring Single Sign-on for Hosted Customers .....	28
<b>Frequently Asked Questions .....</b>	<b>31</b>

# Introduction

---

EnterpriseTrack can be installed on the following operating systems and databases:

- ▶ Windows Operating System with
  - ▶ WebLogic application server
  - ▶ Oracle HTTP Server (OHS)
  - ▶ Oracle or Microsoft SQL Server database
- ▶ Linux Operating System with Oracle database

The Oracle Instantis EnterpriseTrack Installation Guide describes how to set up and install EnterpriseTrack. To upgrade EnterpriseTrack, contact Oracle Support.

## In This Section

---

System Requirements .....	5
Prerequisites .....	5
Downloading EnterpriseTrack.....	5

## System Requirements

Refer to the Tested Configurations document on the OTN website for the minimum hardware requirements and supported versions of operating systems and databases.

## Prerequisites

Install the following applications:

- ▶ Oracle or Microsoft SQL Server Database
- ▶ Oracle Weblogic for Windows installations
- ▶ Oracle Text

## Downloading EnterpriseTrack

To download EnterpriseTrack,

- 1) Go to Oracle Software Delivery Cloud.
- 2) Download **Instantis EnterpriseTrack R8.6 for <platform>** folder and extract the contents. where Instantis EnterpriseTrack R8.6 for <platform> is the name of the media pack.
- 3) Extract the zip file to a directory.

- 
- **Note:** The directory into which the zip file contents are extracted to, is referred to as the **IETRACK\_Root** directory throughout this install guide.
-

# Installing EnterpriseTrack on Microsoft Windows

---

This chapter describes how to install and set up EnterpriseTrack on Microsoft Windows.

## In This Section

---

Windows Prerequisites .....	7
Step 1: Configuring the Database.....	7
Step 2: Configuring WebLogic for EnterpriseTrack on Windows.....	12
Step 3: Installing Oracle HTTP Server (OHS).....	13
Step 4: Installing a Secure Socket Layer (SSL) Certificate .....	14
Step 5: Configuring SiteWand .....	14
Step 6: Installing SiteWand on Windows .....	15
Step 7: Oracle Database Setup Follow-up Steps.....	15
Step 8: Setting the Daily Job Run Password .....	16
Step 9: SiteWand Procedures .....	16

## Windows Prerequisites

The prerequisites for installing EnterpriseTrack on Windows include the following:

- ▶ Oracle or Microsoft SQL Server Database
- ▶ Oracle WebLogic
- ▶ Oracle HTTP Server (OHS)
- ▶ Java SDK Windows

For more details, refer to the Tested Configurations document for the current recommended Java version.

## Step 1: Configuring the Database

This section describes how to configure Oracle and Microsoft SQL Server databases on Windows.

- ▶ To configure an Oracle Database, see Configuring an Oracle Database.
- ▶ To configure a Microsoft SQL Server database, see Configuring a Microsoft SQL Server Database.

## Configuring an Oracle Database

This section describes how to configure an Oracle database for EnterpriseTrack.

### Recommendations for Configuring an Oracle Database

EnterpriseTrack installations can vary based on EnterpriseTrack configuration parameters, the number of projects, the financial categories, the number of months over which financial numbers are tracked, etc. It also depends on how the system will be used, the ratio of OLTP-like requests such as routine transactional workflow-based page navigation to OLAP-like requests (primarily reports). The latter can tax the database with complex multi-way joins whereas the former is typically easier on the database.

The following recommendations can provide some traction and is based on observation of a broad data set. Review these changes with a database administrator before adapting and implementing it to your environment.

For Unicode national language support, consider choosing the following CHARACTER SET while creating the database. This should match the initial database initialization dump provided by Oracle.

#### **CHARACTER SET (NLS\_CHARACTERSET):AL32UTF8**

Consider the following recommended or higher values for init.ora parameters:

#### **CACHE AND I/O**

```
db_block_size = 8192
sga_target = 4G
db_file_multiblock_read_count=16
```

#### **CURSORS AND LIBRARY CACHE**

```
open_cursors = 30000
```

If specifying `sga_target`, then Pools definitions are not required.

#### **POOLS**

```
java_pool_size = 15M
large_pool_size = 200M
```

#### **PROCESSES AND SESSIONS**

```
processes = 1000
```

#### **SORT, HASH JOINS, BITMAP INDEXES**

```
pga_aggregate_target = 2G
workarea_size_policy = 'AUTO'
```

### **SAMPLE 11G INIT.ORA**

```
db_name='INDB'  
memory_target=processes = 150  
audit_file_dest='<ORACLE_BASE>/admin/orcl/adump'  
audit_trail = 'db'  
db_block_size=8192  
db_domain=''  
db_recovery_file_dest='<ORACLE_BASE>/flash_recovery_area'  
db_recovery_file_dest_size=2G  
diagnostic_dest='<ORACLE_BASE>'  
dispatchers='(PROTOCOL=TCP) (SERVICE=ORCLXDB)'  
open_cursors=30000  
remote_login_passwordfile='EXCLUSIVE'  
undo_tablespace='UNDOTBS1'  
  
# You may want to ensure that control files are created on separate physical  
# devices  
control_files = (ora_control1, ora_control2)
```

---

### **Installing the Oracle Database Client**

Refer to the Tested Configurations document and install the correct version of the Oracle database client.

---

### **Configuring Database Files and Disk Layout**

Oracle recommends configuring a single RAID 1+0 (stripe and mirror) disk partition and distributing all data files on this partition. This distributes the I/O requests across several spindles and avoids a single disk being a performance bottleneck while allowing for good space utilization.

---

### **Creating an ETRACK Database**

Create an ETRACK database as follows:

- 1) Login to the Oracle database as a user with database administration privileges to create users.
- 2) Enter the following command:  

```
SQL> @<path to the file>/etrack.sql
```
- 3) In the directory, **IETRACK\_ROOT/data**, locate the Oracle database dump, `mydata.dmp`.

- 4) Use the Oracle IMP utility to import the oracle database dump using the following syntax:

```
shell-command-prompt> imp etrack file=mydata.dmp log=mylog.log
```

or

```
shell-command-prompt> imp sys fromuser=x touser=etrack file=mydata.dmp  
log=mylog.log
```

---

### Creating an Oracle Text Index

To enable document search capabilities in EnterpriseTrack, complete the following steps:

- 1) Install Oracle Text.
- 2) In the directory, **IETRACK\_ROOT/utills/** locate the SQL script, **OracleTextindex\_11g.sql**.
- 3) Edit the script to set values for the database user, password, CTXSYS user, CTXSYS password, and DB connection string.
- 4) Login to the database as the database user created for EnterpriseTrack and run the **OracleTextindex\_11g.sql** script.

---

**Note:** By default, the CTXSYS user is locked after installation. To unlock the account and reset the password for CTXSYS use the following syntax:

```
SQL> alter user CTXSYS account unlock;
```

```
SQL> alter user CTXSYS identified by  
<password_for_CTXSYS>
```

---

- 5) After installation is complete, ensure CTXSYS user is returned to its locked state using the following syntax:

```
SQL> alter user CTXSYS account lock;
```

---

### Configuring a Microsoft SQL Server Database

This section describes how to configure a Microsoft SQL Server database for EnterpriseTrack.

---

#### Installing the Microsoft JDBC Driver

Download the correct JDBC driver from Microsoft. This will be installed in the Weblogic Domain's **lib** directory after Weblogic is configured.

---

#### Configuring Database Files and Disk Layout

Oracle recommends configuring a single RAID 1+0 (stripe and mirror) disk partition and distributing all data files on this partition. This distributes the I/O requests across several spindles and avoids a single disk being a performance bottleneck while allowing for good space utilization.

### Creating an ETRACK Database

In Microsoft SQL Server, create an ETRACK database as follows:

- 1) Create a database named **ETTRACK** with collation name **Latin1\_General\_BIN** on the SQL Server database.
- 2) Restore the database and the database dump included in **IETRACK\_ROOT\data\mydata.bak**
- 3) The database restore creates a database user / password, **etrack / etrack**.
- 4) From the command prompt, connect to the database as an administrator using osql  
(osql -U <admin> -d <database>)
- 5) Run the following query:

```
sp_addlogin 'etrack'  
go  
sp_change_users_login 'Update_One', 'etrack', 'etrack'  
go  
sp_change_users_login 'auto_fix', 'etrack'  
go
```
- 6) In SQL Server Management Studio, select **Security, Logins**.
  - a. Select the user, **etrack**.
  - b. Right click and select **Properties**.
  - c. Change and confirm the password, and **Save**.

---

### Installing Full-Text Search Capabilities

Full-text search is an optional component of the SQL Server database engine for SQL Server 2008 R2.

To enable full-text searching capabilities in EnterpriseTrack, perform the following procedures.

- ▶ Creating a full- text catalog
- ▶ Indexing PDF profiles

#### Creating a Full-Text Catalog

Create a full-text catalog, **enterprisetrack** as follows:

- 1) On the C drive of the database server, create a folder, **textsearch**.
- 2) Copy **IETRACK\_ROOT \utils\index.txt** into the **C:\textsearch** folder.
- 3) Use the following syntax to run the **index.txt** script:

```
osql -U <dbuser> -d <databasename> -i <script>
```

For example,

```
osql -U etrack -d etrack -i index.txt
```

A full-text catalog, **enterprisetrack**, is created.

## Indexing PDF Files

To install the appropriate "IFilter", and enable indexing of PDF files and search of its contents from SQL Server, refer to the appropriate documentation for SQL Server and Adobe PDF document format on their respective websites.

## Step 2: Configuring WebLogic for EnterpriseTrack on Windows

This section describes how to perform the following tasks in WebLogic for EnterpriseTrack:

- ▶ Creating a WebLogic Domain for EnterpriseTrack
- ▶ Starting the WebLogic Admin Server
- ▶ Stopping the WebLogic Admin Server

### Creating a WebLogic Domain

Create a WebLogic domain for EnterpriseTrack, as follows:

- 1) Run the WebLogic Configuration Wizard.
  - **Note:** Click **Next** on each wizard dialog box to advance to the next step.
- 2) In the **Welcome** window, select **Create a new WebLogic domain**.
- 3) In the **Select Domain Source** window, accept all default selections.
- 4) In the **Specify Domain Name and Location** window, enter the domain name, and domain location.
- 5) In the **Configure Administrator User Name and Password** window, enter the user name and password information for the administrator.
- 6) In the **Configure Server Start Mode and JDK** window,
  - a. Select **Production Mode** in the left pane.
  - b. Select an appropriate JDK in the right pane.
- 7) In the **Select Optional Configuration** window, select the **Administration Server** option.
- 8) In the **Configuration Summary** window, click **Create**.
- 9) Click **Done** if available, or continue to the next step.
- 10) In the Creating Domain window, select **Start Admin Server** and click **Done**.
- 11) When prompted, enter the administrator user name and password created in step 5.
- 12) Navigate to the domain's WebLogic directory and copy the JDBC driver in the **lib** folder.

### Starting the WebLogic Admin Server

Start the admin server to deploy the EnterpriseTrack application in WebLogic as follows:

- 1) From the **Start** menu, select **Oracle WebLogic**.
- 2) Select the menu option, **User Projects, Domain**, then **Start Server**.
- 3) In the WebLogic console window, enter the Weblogic server administrator user name and password that was specified when creating the WebLogic domain.

**Notes:** Oracle recommends to set the Java heap space for the Weblogic server to **-Xms256m -Xmx6000m**.

If the WebLogic precompile option is enabled, the WebLogic console displays the message, "Server started in RUNNING mode" when precompiling finishes. For details on how to enable precompilation, see WebLogic Server documentation.

---

### Stopping the WebLogic Admin Server

To stop the WebLogic admin server on Windows complete the following steps.

- 1) From the **Start** menu, select **Oracle WebLogic, User Projects, Domain**, then **Stop Server**.
- 2) If prompted for a user name and password in the WebLogic console window, enter the WebLogic server administrator user name and password you specified when creating the domain.

---

**Note:** The WebLogic console closes automatically when shutdown.

---

### Step 3: Installing Oracle HTTP Server (OHS)

Install the Oracle HTTP server (OHS) to support compression with EnterpriseTrack on Windows installations. For supported version levels, see the Tested Configurations document. For installation instructions, refer to the Administrator's Guide for Oracle HTTP Server document at [http://docs.oracle.com/cd/E23943\\_01/web.1111/e10144/toc.htm](http://docs.oracle.com/cd/E23943_01/web.1111/e10144/toc.htm)

### Configuring Oracle HTTP Server (OHS)

Configure Oracle HTTP Server (OHS) for EnterpriseTrack on Windows as follows:

- 1) Shut down all applications such as IIS on Windows.
- 2) Modify the OHS **httpd.conf** file as follows:
  - a. Change the OHS\_LISTEN\_PORT (listen port) from **7777** to Listen **80**.
  - b. Configure the compression by adding the following to the load module section.

```
LoadModule deflate_module
"${ORACLE_HOME}/ohs/modules/mod_deflate.so"
<IfModule mod_deflate.c>
# Compression for saving on transmission-time/bandwidth
SetOutputFilter DEFLATE
SetEnvIfNoCase Request_URI \.(?:gif|jpe?g|png)$ no-gzip dont-vary
SetEnvIfNoCase Request_URI \.(?:exe|t?gz|zip|bz2|sit|rar)$ no-gzip
dont-vary
SetEnvIfNoCase Request_URI \.pdf$ no-gzip dont-vary
SetEnvIfNoCase Request_URI \.avi$ no-gzip dont-vary
```

```
SetEnvIfNoCase Request_URI \.mov$ no-gzip dont-vary
SetEnvIfNoCase Request_URI \.mp3$ no-gzip dont-vary
SetEnvIfNoCase Request_URI \.mp4$ no-gzip dont-vary
SetEnvIfNoCase Request_URI \.rm$ no-gzip dont-vary
DeflateFilterNote Ratio ratio
AddOutputFilterByType DEFLATE text/plain text/html
application/postscript
# Some more knobs with their default values (all happen to be max
allowed)
DeflateBufferSize 20000
</IfModule>
# Inode numbers should never be included in ETag for servers in a
cluster
FileETag MTime Size
```

- 3) Add the following to the **\$ORACLE\_INSTANCE/config/OHS/ohs1/mod\_wl\_ohs.conf** file.

```
<Location /SiteWand>
    SetHandler weblogic-handler
    WebLogicHost localhost
    WebLogicPort 7001
</Location>
```

- 4) Use `opmn` to restart the OHS server.

### Step 4: Installing a Secure Socket Layer (SSL) Certificate

EnterpriseTrack works in secure and non-secure modes. Installing a Secure Socket Layer (SSL) with a valid certificate is strongly recommended. In its absence, communication between the server and browser can be compromised.

### Step 5: Configuring SiteWand

If there is an existing installation, associated servers will interfere with resources being configured (such as network port numbers). Ensure that you stop the servers following the associated documentation.

Configure SiteWand on Windows by modifying the **site.properties** file as follows:

- 1) Login to the server as a user with Windows administrator privileges.
- 2) In the **IETRACK\_ROOT** directory, locate the **site.properties** file.
- 3) Use the appropriate example in the properties file to modify the configuration property specific to the server installation.

## Step 6: Installing SiteWand on Windows

The EnterpriseTrack Server runtime is called SiteWand. Install SiteWand on Windows as follows:

- 1) Change directory to **IETRACK\_ROOT**.
- 2) Run the following command:  
`configMiddleTier application`
- 3) Enter database user and password when prompted.
- 4) Start the WebLogic Admin Server Console for the domain.
- 5) Select **Lock and Edit** to change the domain.
- 6) Select **Deployments, Install**.
- 7) Select **SiteWand.war** in the directory **IETRACK\_ROOT**.
- 8) Select **Next**.
- 9) Select **Install this deployment as an application**.
- 10) Select **Next**.
- 11) In the **Name** field, select a name for the deployment.
- 12) In the **Security** field, select **DD Only: Use only roles and policies that are defined in the deployment descriptors**.
- 13) In the Source accessibility field select **Use the defaults defined by the deployment's targets**.
- 14) Select **Finish**.
- 15) Select **Activate Changes**.
- 16) In **Deployments**, select the deployment and **Start all requests**.

---

**Note:** The Admin console will shut down and not be accessible until launched again.

---

## Step 7: Oracle Database Setup Follow-up Steps

If you restore the database from the database dump file **IETRACK\_ROOT/data/mydata.dmp** (recommended), then the following steps are not required.

Alternatively, run the following command to load the Java stored procedures into the Oracle database:

- 1) Install Oracle Client on Windows server.
- 2) Change directory to **IETRACK\_ROOT**.
- 3) In the **site.properties** file, update the **ORACLE\_HOME** property based on the setting during Oracle Client installation in step 1.
- 4) Run the command: `configMiddleTier oracleJsp all`
- 5) Enter the database user ID and password.

## Step 8: Setting the Daily Job Run Password

The EnterpriseTrack application requires an automated scheduled task, **DailyJob.bat** (or **dailyjob.pl**), to be run daily. This job updates the project status based on the associated project dates and their relation to current date, and sends appropriate notification emails. The daily job is password-protected. The password to run the daily job must be setup using the Configuration Workbench in EnterpriseTrack. For further assistance, contact Oracle Support.

A template script to run the daily job is available at IETRACK\_ROOT/utills/DailyJob.bat. Edit this file to pass correct values for these parameters to the DailyJob.exe program:

- ▶ **IETRACK\_ROOT**: Set this to the full path name to the script file.
- ▶ **daily\_job\_error\_email**: Set this to an email address at which you would like to receive email reporting errors that occur when the Daily Job is run.
- ▶ **hostname[:port]**: Set this to the host name and port number at which the SiteWand server listens. (Contact your application server administrator if you need further assistance).
- ▶ **accountname**: Set this to etrack. In general this would be the name of the SiteWand account in which Etrack is installed.
- ▶ **daily\_job\_password**: Set this to the Daily Job Password that you configured above.

Configure the Windows Task Scheduler to schedule the DailyJob.bat file for execution once every 24 hours (preferably at night). The Windows Task Scheduler can be accessed from the Windows Control Panel

## Step 9: SiteWand Procedures

This section describes administration procedures for SiteWand.

### Starting SiteWand

To start SiteWand, complete the following steps:

- 1) Ensure the database server is started and running.
- 2) From the **Start** menu, select **Oracle WebLogic, User Projects, Domain, Start Server**.
- 3) If prompted, enter the administrator user name and password you specified when creating the domain in the WebLogic console window.

### Stopping SiteWand

Oracle recommends stopping SiteWand before shutting down the database. To stop WebLogic, refer to Stopping the WebLogic Admin Server.

### Restarting SiteWand

To restart SiteWand, refer to WebLogic documentation to restart the server.

### Changing the Database Password of ETRACK Account

To change the password for the ETRACK database account used by SiteWand:

- 1) Stop SiteWand.
- 2) Change directory to **IETRACK\_ROOT**
- 3) Execute the following command:  
configMiddleTier.exe application  
The **SiteWand.war** file will be updated with the new password and must be redeployed.
- 4) Start SiteWand.

### Uninstalling SiteWand

To uninstall SiteWand, complete the following steps:

- 1) Follow WebLogic documentation to undeploy the SiteWand.war application and delete the domain directory.
- 2) Restart WebLogic.



# Installing EnterpriseTrack on Linux

---

This chapter describes how to install and set up EnterpriseTrack on Linux. On linux, EnterpriseTrack installation works with:

- ▶ Oracle database
- ▶ Apache
- ▶ Tomcat as the application server

## In This Section

---

Linux Prerequisites .....	19
Step 1: Installing and Configuring Oracle Database.....	19
Step 2: Configuring SiteWand.....	22
Step 3: Installing SiteWand.....	23
Step 4: Oracle Database Setup Follow-up Steps.....	24
Step 5: Installing Secure Socket Layer (SSL) on Linux .....	24
Step 6: Setting the Daily Job Run Password.....	24
Step 7: SiteWand Procedures.....	25

## Linux Prerequisites

The prerequisites for installing EnterpriseTrack on Linux include the following:

- ▶ Oracle Database
- ▶ Perl
- ▶ Java SDK Linux RPM from Oracle

For more details, refer to the Tested Configurations document for the recommended Java version.

## Step 1: Installing and Configuring Oracle Database

This section describes how to configure an Oracle database on Linux.

## Recommendations for Configuring an Oracle Database

EnterpriseTrack installations can vary based on EnterpriseTrack configuration parameters, the number of projects, the financial categories, the number of months over which financial numbers are tracked, etc. It also depends on how the system will be used, the ratio of OLTP-like requests such as routine transactional workflow-based page navigation to OLAP-like requests (primarily reports). The latter can tax the database with complex multi-way joins whereas the former is typically easier on the database.

The following recommendations can provide some traction and is based on observation of a broad data set. Review these changes with a database administrator before adapting and implementing it to your environment.

For Unicode national language support, consider choosing the following CHARACTER SET while creating the database. This should match the initial database initialization dump provided by Oracle.

### **CHARACTER SET (NLS\_CHARACTERSET):AL32UTF8**

Consider the following recommended or higher values for init.ora parameters:

#### **CACHE AND I/O**

```
db_block_size = 8192
sga_target = 4G
db_file_multiblock_read_count=16
```

#### **CURSORS AND LIBRARY CACHE**

```
open_cursors = 30000
```

If specifying `sga_target`, then Pools definitions are not required.

#### **POOLS**

```
java_pool_size = 15M
large_pool_size = 200M
```

#### **PROCESSES AND SESSIONS**

```
processes = 1000
```

#### **SORT, HASH JOINS, BITMAP INDEXES**

```
pga_aggregate_target = 2G
workarea_size_policy = 'AUTO'
```

#### **SAMPLE 11G INIT.ORA**

```
db_name='INDB'
memory_target=processes = 150
audit_file_dest='<ORACLE_BASE>/admin/orcl/adump'
audit_trail = 'db'
db_block_size=8192
db_domain=''
db_recovery_file_dest='<ORACLE_BASE>/flash_recovery_area'
db_recovery_file_dest_size=2G
diagnostic_dest='<ORACLE_BASE>'
dispatchers='(PROTOCOL=TCP) (SERVICE=ORCLXDB) '
open_cursors=30000
```

```
remote_login_passwordfile='EXCLUSIVE'  
undo_tablespace='UNDOTBS1'  
# You may want to ensure that control files are created on separate physical  
# devices  
control_files = (ora_control1, ora_control2)
```

## Installing the Oracle Database Client

Refer to the Tested Configurations document and install the correct version of the Oracle database client.

## Configuring Database Files and Disk Layout

Oracle recommends configuring a single RAID 1+0 (stripe and mirror) disk partition and distributing all data files on this partition. This distributes the I/O requests across several spindles and avoids a single disk being a performance bottleneck while allowing for good space utilization.

## Creating an ETRACK Database

Create an ETRACK database as follows:

- 1) Login to the Oracle database as a user with database administration privileges to create users.
- 2) Enter the following command:

```
SQL> @<path to the file>/etrack.sql
```

- 3) In the directory, **IETRACK\_ROOT/data**, locate the Oracle database dump, `mydata.dmp`.

- 4) Use the Oracle IMP utility to import the oracle database dump using the following syntax:

```
shell-command-prompt> imp etrack file=mydata.dmp log=mylog.log
```

or

```
shell-command-prompt> imp sys fromuser=x touser=etrack file=mydata.dmp  
log=mylog.log
```

## Creating an Oracle Text Index

To enable document search capabilities in EnterpriseTrack, complete the following steps:

- 1) Install Oracle Text.
- 2) In the directory, **IETRACK\_ROOT/utls/** locate the SQL script, **OracleTextindex\_11g.sql**.
- 3) Edit the script to set values for the database user, password, CTXSYS user, CTXSYS password, and DB connection string.

- 4) Login to the database as the database user created for EnterpriseTrack and run the **OracleTextindex\_11g.sql** script.

**Note:** By default, the CTXSYS user is locked after installation. To unlock the account and reset the password for CTXSYS use the following syntax:

```
SQL> alter user CTXSYS account unlock;
```

```
SQL> alter user CTXSYS identified by  
<password_for_CTXSYS>
```

- 5) After installation is complete, ensure CTXSYS user is returned to its locked state using the following syntax:

```
SQL> alter user CTXSYS account lock;
```

### Step 2: Configuring SiteWand

If there is an existing installation, associated servers will interfere with resources being configured (such as network port numbers). Ensure that you stop the servers following the associated documentation.

To configure SiteWand, complete the following tasks:

- ▶ Extracting the SiteWand File
- ▶ Configuring the Site Properties File

#### Extracting the SiteWand File

Extract the SiteWand file as follows:

- 1) Change directory to **IETRACK\_ROOT**.
- 2) Untar the **IETRACK\_ROOT / sitewand.tar.gz** file.
- 3) Name the directory that gets created as **sitewand**. This directory is now referred to as **ROOT\_DIR**.

For example, if sitewand.tar.gz is untar-ed to /home/webserv1/work, then the ROOT\_DIR is /home/webserv1/work/sitewand.

#### Modifying the Site.Properties File

To configure SiteWand, copy the base configuration properties file **linux.properties** located in the **ROOT\_DIR/ deploy/ middleTier/ siteProperties/** directory to the **ROOT\_DIR/ deploy/ middleTier/** directory. Rename **linux.properties** to **site.properties**. It specifies properties specific to the server installation.

The **site.properties** file also contains examples to modify the configuration properties. Use the appropriate example to modify the configuration property specific to the server installation. After modifying the site.properties file, proceed to Starting SiteWand on Linux.

In the `site.properties` file, modify the following properties:

- ▶ To run the server as a non-root user, set the port number to a value greater than 1024 for the following properties:
  - ▶ `BASE_APACHE_SERVER_PORT`
  - ▶ `URL_PORT`

Lower-valued port numbers are usually reserved for system services.

- ▶ To customize Apache installed as a part of the EnterpriseTrack installation, configure the following properties:
  - ▶ `CUSTOM_APACHE_CONFIG_PRE_LOADMODULES`  
Enter a filename as the property value.  
This file must contain “`httpd.conf`” compatible commands and will be included just before the first of the `LoadModule` commands is executed. For example, use this feature to load custom Apache modules, such as SSO.
  - ▶ `CUSTOM_APACHE_CONFIG_POST_LOADMODULES`  
Enter a filename as the property value.  
This file must contain “`httpd.conf`” compatible commands and will be included just after the last of the `LoadModule` commands is executed, and the following “`httpd.conf`” directives have been executed: `USER`, `GROUP`, `ServerAdmin`, `ServerName` and `UseCanonicalName Off`.
  - ▶ `CUSTOM_APACHECTL_CMDS`  
Enter a Bourne shell filename as the property value.  
The file will be included (sourced) in the `apachectl` file used to start / stop the Apache “`httpd`” process.

### Step 3: Installing SiteWand

Install SiteWand on Linux as follows:

- 1) Change directory to **`ROOT_DIR/deploy/middleTier`**
- 2) Run the following command to install Apache, Tomcat and SiteWand:
 

```
perl -w configMiddleTier.pl all all
```
- 3) Specify `linux.properties` as the properties file and enter the appropriate database user and password when prompted.
- 4) To make EnterpriseTrack server auto-start on a machine reboot.
  - a. Login as "Root".
  - b. Edit **`ROOT_DIR/deploy/middleTier/S99instantisSiteWand-example`** to suit your environment and save.
  - c. Copy the edited **`S99instantisSiteWand`** file to **`/etc/init.d`** as **`/etc/init.d/instantisSiteWand`**.

- d. Link the following rc-files to **/etc/init.d/instantisSiteWand** script.  
`/etc/rc{3,5}.d/S99instantisSiteWand` and `/etc/rc{0,1}.d/K99instantisSiteWand`  
For example,  
`lrwxrwxrwx 1 root root..... /etc/rc0.d/K99instantisSiteWand -> ../init.d/instantisSiteWand`  
`lrwxrwxrwx 1 root root..... /etc/rc3.d/S99instantisSiteWand -> ../init.d/instantisSiteWand`

#### Step 4: Oracle Database Setup Follow-up Steps

If you restore the database from the database dump file **IETRACK\_ROOT/data/mydata.dmp** (recommended), then the following steps are not required. Otherwise, upload Oracle java-stored procedures to the Oracle database as follows:

- 1) Change directory to **ROOT\_DIR/sitewand/deploy/middleTier**
- 2) Run the command: `perl configMiddleTier.pl oracleJsp all`
- 3) Enter the database user ID and password.

#### Step 5: Installing Secure Socket Layer (SSL) on Linux

EnterpriseTrack works in secure and non-secure modes. Installing a Secure Socket Layer (SSL) with a valid certificate is strongly recommended. In its absence, communication between the server and browser can be compromised.

Set up SSL on SiteWand, as follows:

- 1) In the **site.properties** file, check if the **ENABLE\_APACHE\_SSL property = True** to ensure the server is configured to process SSL.
- 2) Rename the certificate and key as **\$URL\_HOST.crt** and **\$URL\_HOST.key**, respectively, where:  
**\$URL\_HOST** is the value of the property knob, **URL\_HOST**, defined in the **site.properties** file.  
For example, `etrack.example.com.crt`.
- 3) Install the Apache openssl shared libraries (`libssl.so.*`), to let SiteWand process SSL.  
For more information on download and installation instructions, refer to <http://www.openssl.org/source/>

#### Step 6: Setting the Daily Job Run Password

The EnterpriseTrack application requires an automated scheduled task, **dailyjob.pl**, to be run daily. This job updates the project status based on the associated project dates and their relation to current date, and sends appropriate notification emails. The daily job is password-protected. The password to run the daily job must be setup using the Configuration Workbench in EnterpriseTrack. For further assistance, contact Oracle Support.

Setup a cron job to run DailyJob.pl once every 24 hours (preferably at night). Here's an example cron entry, which happens to run the script every day at 3:00 AM.

```
00 3 * * * /usr/bin/perl /full-path/DailyJob.pl daily_job_error_email https://hostname[:port]
accountname daily_job_password >> etrack.log 2>&1
```

The parameters in the cron entry are set as follows:

- ▶ **full-path:** Set this to the full path name to the script file.
- ▶ **daily\_job\_error\_email:** Set this to an email address at which you would like to receive email reporting errors that occur when the Daily Job is run.
- ▶ **https://hostname[:port]:** Set this to the host name and port number at which the SiteWand server listens. (Contact your Application server administrator if you need further assistance).
- ▶ **daily\_job\_password:** Set this to the Daily Job Password that you configured above.
- ▶ **accountname:** Set this to **etrack**. In general this would be the name of the SiteWand account in which Etrack is installed.

## Step 7: SiteWand Procedures

This section describes administration procedures for SiteWand.

### Starting SiteWand on Linux

To start SiteWand from the directory,

Execute the following command from the directory:

- 1) `ROOT_DIR/deploy/middleTier`
- 2) Start Apache as root:  
`perl launchMiddleTier.pl start apache all`
- 3) Start Tomcat as a regular user:  
`perl launchMiddleTier.pl start tomcat all`
- 4) Wait a few minutes for the server startup to complete.

### Stopping SiteWand on Linux

Oracle recommends stopping SiteWand before shutting down the database.

To stop SiteWand:

- 1) Change directory to **INSTALL\_DIR/sitewand/deploy/middleTier**
- 2) Execute the following command:  
`perl launchMiddleTier.pl stop all all`

### Restarting SiteWand on Linux

Restart the SiteWand server as follows.

- 1) Change directory to **INSTALL\_DIR/sitewand/deploy/middleTier**
- 2) Execute the following command:

```
perl launchMiddleTier.pl restart all all
```

### Restarting Apache as ROOT on Linux

Execute the following command:

```
perl launchMiddleTier.pl restart apache all
```

### Restarting TomCat as a Regular User

Execute the following command:

```
perl launchMiddleTier.pl restart tomcat all
```

### Changing the Database Password of ETRACK Account

To change the password for the ETRACK database account used by SiteWand:

- 1) Stop SiteWand.
- 2) Change directory to **IETRACK\_ROOT/sitewand/deploy/middleTier**
- 3) Execute the following command:  

```
perl configMiddleTier.pl changePassword all
```
- 4) Start SiteWand.

### Uninstalling SiteWand

To uninstall SiteWand, complete the following steps:

- 1) Stop SiteWand.
- 2) Delete IETRACK\_ROOT and INSTALL\_DIR
- 3) Remove the following rc-files:
  - ▶ /etc/rc{3,5}.d/S99instantisSiteWand
  - ▶ /etc/rc{0,1}.d/K99instantisSiteWand

# Accessing and Customizing EnterpriseTrack

---

This chapter describes how to access the URLs for the following applications:

- ▶ EnterpriseTrack
- ▶ SiteWand

## In This Section

---

Accessing the EnterpriseTrack Login Page .....	27
Accessing the SiteWand Login Page .....	27
Enabling Organization-Specific User Interface Components in EnterpriseTrack .....	28
Configuring Single Sign-on for Hosted Customers.....	28

### Accessing the EnterpriseTrack Login Page

The following URL displays the EnterpriseTrack Login page:

`https://<hostname>[:<port>]/SiteWand/ServeForm/etrack/login`

To login to EnterpriseTrack:

- 1) In the **Login ID** field, enter **instantis\_sa**.
- 2) In the **Password** field, enter **change\_on\_install**.
- 3) Click the **Login** button. The Change Password page displays.
- 4) In the Change Password page, enter a new alphanumeric password.  
The Configuration Workbench page displays. The Configuration Workbench allows you to customize EnterpriseTrack for your organization. For further assistance, contact Oracle Support.

### Accessing the SiteWand Login Page

Access the backend URL to login for maintenance work such as, applying patches and upgrades. Each patch will contain detailed installation instructions. During initial installation, you must login to set a new password for the backend application as follows.

- 1) Access the backend URL, `http://<hostname>[:<port>]/SiteWand/Login`  
The Login page displays.
- 2) In the **Login Name** field, enter **etrack.on\_premise**.  
The part of the login name before the `.on_premise` suffix is the name of the SiteWand account in which the EnterpriseTrack application is installed. For example, if EnterpriseTrack is installed in a SiteWand account called `etrack2`, then the corresponding backend login name is `etrack2.on_premise`.
- 3) In the **Password** field, enter `change_on_install`, and click Login.  
The Control Panel page displays.

- 4) In the upper-left-corner, click the **Account** button.  
The Account Settings page displays.
- 5) Click the **View/Edit** button adjacent to the Login Password field.
- 6) In the **Current Password** field, enter **change\_on\_install**.
- 7) In the **New Password** field, enter a new password value and re-enter it again to confirm it.
- 8) Enter a password hint to help remember the password.
- 9) Enter the e-mail address to which the password hint will be e-mailed.
- 10) Click **OK** to confirm the changes made.
- 11) Log out of SiteWand.

### Enabling Organization-Specific User Interface Components in EnterpriseTrack

All the images, logos and stylesheets used by EnterpriseTrack are located using a base URL which can be configured using the Configuration Workbench. By default, the base URL points to a server at Oracle. If you want to customize these, you will need to install them on your web server and change the base URL to point to your server as follows:

- 1) Copy to the following folders that are provided in the CD or the distribution.
  - ▶ On Windows, unzip the **basehref.zip** to the DocumentRoot directory defined in **httpd.conf** for OHS webserver
  - ▶ On Linux, copy the **<customer name>bhref** folder to **INSTALL\_DIR/apache-X/htdocs/SiteWand/public**  
For more details on INSTALL\_DIR, refer to the **linux.properties** file.
- 2) Configure the Base URL Link as follows:
  - a. In the **Configuration Workbench** page, click on the **Deployment Options** tab.
  - b. In the **Advanced Settings** section click on the **Base URL** link.
  - c. Save the current value of the Base URL as a backup.
  - d. Enter the new value for the Base URL.
  - e. Click **Validate** to test access to an icon. Upon successful validation, a green check displays.
  - f. Click the **Update** button to set the new Base URL link.

### Configuring Single Sign-on for Hosted Customers

EnterpriseTrack uses the SAML 2.0 standard for Single Sign-On authentication. To configure EnterpriseTrack for Single Sign-On, your organization must provide the following entities:

- ▶ identity provider metadata  
The identity provider metadata is provided by the client.
- ▶ The identity provider entity ID  
The identity provider entity ID is defined by the identity provider metadata. The entity ID must match the ID set in the application login engine to redirect the user when there is no valid SSO session.

- ▶ The attribute containing the end-user login identifier

---

**Note:** The attribute contains a name and a type; and must match exactly. You can send the attribute as a normal attribute or as a SubjectName. The end-user login identifier value is used by the REMOTE\_USER variable to access EnterpriseTrack.

---

After configuring EnterpriseTrack for SSO for your organization, Oracle will provide the hostname of EnterpriseTrack to your organization.

Log in to EnterpriseTrack using SSO.



## Frequently Asked Questions

---

- 1) What are the disk space requirements for a middle-tier machine?

For more information, refer to the Tested Configurations document.

- 2) How do I get the application images to display?

a. Right-click on the image that is not shown and select properties.

b. Ensure that the URL for the image is pointing to the correct server. For more details, refer to the section in this guide, Enabling Organization-Specific Components in EnterpriseTrack, detailing the installation of images, and the EnterpriseTrack Administration Guide to configure the associated URL.

- 3) Where are the various log files located? How are these logs rotated?"

On Linux, Apache logs are located in the directory, `INSTALL_DIR/apache-X/logs`. Apache logs are rotated using the program "rotatelogs".

On Linux, Tomcat logs are located in the directory, `INSTALL_DIR/tomcat-X/logs`.

On Windows, refer to the OHS and WebLogic documentation for the location of OHS log files and application-generated log files respectively.

The application log files are typically named `instantisTrace-*`. These log files are periodically rotated, compressed (gzip) and moved to the 'old-logs' directory in `INSTALL_DIR` on Linux.

The rotation action simply causes the current log to be switched by renaming it by suffixing a timestamp or a phrase such as "-full" while continuing to write to a newly created log file. The archival or removal of these older rotated log files are up to the administrator and need to be done per the customer's policies; we recommend keeping each log file for at least a month or more to help with troubleshooting.

- 4) How do I backup the EnterpriseTrack application?

The best practice is to backup the database schema (or the Instance) associated with the application with the help of a database administrator.

- 5) One of the servers is not starting. What are the common problems.

Here are some of the common problems:

- ▶ Check available disk space on the middle-tier machine.
- ▶ Verify that a database connection can be established from the middle-tier machine.
- ▶ Review the logs for the web server, application server and the application.

6) The application has stopped sending emails. What are the possible causes?

Check for the following:

- ▶ Ensure that the mail server is up and accessible from the machine where EnterpriseTrack is installed.
- ▶ Review the middle-tier server firewall settings.
- ▶ Review any mail server changes. Update SiteWand with the new mail servers IP address details. To update the mail servers:
  - For Windows, follow the steps in [Configuring Sitewand \(Windows\)](#)
  - For Linux, follow the steps in [Configuring Sitewand \(Linux\)](#)