Oracle® Secure Enterprise Search

Installation Guide

10*g* Release 1 (10.1.8.1) for Linux x86-64

E10263-01

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This document describes how to install Oracle Secure Enterprise Search (SES). It includes the following sections:

- Installing Oracle Secure Enterprise Search
- Upgrading Oracle Secure Enterprise Search
- Restarting Oracle Secure Enterprise Search
- What to Do Next?
- Additional Resources
- Documentation Accessibility

Note: After installing Oracle SES, check to see if there is a patch set or critical patch update (CPU) available. A CPU is a collection of patches for security vulnerabilities. It also includes non-security fixes required (because of interdependencies) by those security patches. CPUs are cumulative, and they are provided quarterly on the Oracle Technology Network. Oracle SES 10.1.8.1 includes the April 2007 CPU for the underlying 10.1.0.5 database. If a later CPU is available, then install that. For more information about CPUs, see:

`http://www.oracle.com/security/critical-patch-update.html`

See Also: Up-to-date Release Notes are posted on Oracle Technology Network (OTN). You must register online before using OTN; registration is free and can be done at

`http://www.oracle.com/technology/membership/`

If you already have a user name and password for OTN, then you can go directly to the documentation section of OTN at

`http://www.oracle.com/technology/documentation`

Installing Oracle Secure Enterprise Search

This section contains the following topics:

- Pre-Installation Tasks
- Installation Tasks

ORACLE

- Silent Installation Tasks
- Post-Installation Tasks
- Uninstallation Tasks

Pre-Installation Tasks

Oracle SES can be installed on the following Linux operating systems:

- Oracle Enterprise Linux 4
- Red Hat Linux 3, Red Hat Linux 4
- SUSE Linux 9

These are the only supported distributions and versions. Do not install Oracle SES on other versions of Linux.

This section contains the following topics:

- General Requirements for Installing Oracle Software
- Checking the Software Requirements
- Checking the Hardware Requirements
- Configuring Kernel Parameters
- Setting Shell Limits for the oracle User
- Installing on a Port Number Less Than 1024
- Changing the Oracle SES Middle Tier Port
- Setting the Correct Locale

General Requirements for Installing Oracle Software

The following sections describe the general requirements for installing Oracle software:

- Logging In to the System as root
- Required Operating System Group and User
- Oracle Inventory Group
- Oracle Software Owner User

Logging In to the System as root Before you install Oracle software, you must complete several tasks as the `root` user. To log in as the `root` user, complete one of the following procedures:

> **Note:** Unless you intend to complete a silent installation, you must install the software from an X Window System workstation, an X terminal, or a PC or other system with X server software installed.

- If you are installing the software from an X Window System workstation or X terminal, then:

  1. Start a local terminal session, for example, an X terminal (`xterm`).

2. If you are not installing the software on the local system, then enter the following command to enable the remote host to display X applications on the local X server:

   ```
   $ xhost fully_qualified_remote_host_name
   ```

3. If you are not installing the software on the local system, then use the `ssh`, `rlogin`, or `telnet` command to connect to the system on which you want to install the software:

   ```
   $ telnet remote_host
   ```

4. If you are not logged in as the `root` user, then enter the following command to switch user to `root`:

   ```
   $ su - root
   ```

- If you are installing the software from a PC or other system with X server software installed, then:

  Note: If required, refer to your X server documentation for more information about completing this procedure. Depending on the X server software that you are using, you may need to complete the tasks in a different order.

  1. Start the X server software.
  2. Configure the security settings of the X server software to permit remote hosts to display X applications on the local system.
  3. Connect to the remote system on which you want to install the software and start a terminal session on that system, for example, an X terminal (`xterm`).
  4. If you are not logged in as the `root` user on the remote system, then enter the following command to switch user to `root`:

     ```
     $ su - root
     ```

Required Operating System Group and User Depending on whether this is the first time Oracle software is being installed on this system and on the products that you are installing, you may need to create the following operating system group and user:

- Oracle Inventory group (typically, `oinstall`)

  You must create the Oracle Inventory group the first time you install Oracle software on the system. The usual name chosen for this group is `oinstall`. This group owns the Oracle inventory, which is a catalog of all Oracle software installed on the system.

  Note: If Oracle software is already installed on the system, then the existing Oracle Inventory group must be the primary group of the operating system user that you use to install new Oracle software.

- Oracle software owner user (typically, `oracle`)

You must create the Oracle software owner user the first time you install Oracle software on the system. This user owns all of the software installed during a given installation. This user must have the Oracle Inventory group as its primary group.

Note: In Oracle documentation, the Oracle software owner user is referred to as the `oracle` user.

A single Oracle Inventory group is required for all installations of Oracle software on the system. After the first installation of Oracle software, you must use the same Oracle Inventory group for all subsequent Oracle software installations on that system. However, you can choose to create different Oracle software owner users for different installations.

Note: As an alternative to creating local users and groups, you can create the appropriate users and groups in a directory service. For example, Network Information Services (NIS). Contact your system administrator or refer to your operating system documentation for information about using directory services.

Oracle Inventory Group If Oracle software is already installed on the system, then the existing Oracle Inventory group must be the primary group of the operating system user that you use to install new Oracle software. This section describes how to identify an existing Oracle Inventory group and, if required, to create it.

When you install Oracle software on the system for the first time, Oracle Universal Installer creates the `oraInst.loc` file. This file identifies the name of the Oracle Inventory group and the path of the Oracle Inventory directory. To determine if the Oracle Inventory group exists, enter the following command:

```
more /etc/oraInst.loc
```

If the output of this command shows the `oinstall` group name, then the group already exists.

If the `oraInst.loc` file exists, then the output from this command is similar to the following:

```
inventory_loc=/u01/app/oracle/oraInventory
inst_group=oinstall
```

The `inst_group` parameter shows the name of the Oracle Inventory group, `oinstall`.

To create the Oracle Inventory group: If the `oraInst.loc` file does not exist, then enter the following command to create the `oinstall` group:

```
# /usr/sbin/groupadd oinstall
```

Note: Oracle recommends that you use the group name `oinstall` for the Oracle Inventory group.

Oracle Software Owner User You must create an Oracle software owner user if any of the following conditions is true:

- An Oracle software owner user does not exist; for example, if this is the first installation of Oracle software on the system.
- An Oracle software owner user exists, but you want to use a different operating system user.

> **Note:** In this document, the Oracle software owner user is referred to as `oracle`.

To determine if an Oracle software owner user named `oracle` exists, enter the following command:

```
# id oracle
```

If the `oracle` user exists, then the output from this command is similar to the following:

```
uid=440(oracle) gid=200(oinstall) groups=201(dba),202(oper)
```

If the user exists, then determine whether you want to use the existing user or create a user. If you want to use the existing user, then ensure that the user's primary group is the Oracle Inventory group.

> **Note:** If necessary, contact your system administrator before using or modifying an existing user.

To create an Oracle Software Owner User: If the Oracle software owner user does not exist or if you require a new Oracle software owner user, then create it as follows:

> **Note:** In the following procedure, use the user name `oracle` unless a user with that name already exists.

1. To create the `oracle` user, enter a command similar to the following:

   ```
   # /usr/sbin/useradd -g oinstall[ -G dba] oracle
   ```

   In this command:

   - The `-g` option specifies the primary group, which must be the Oracle Inventory group, for example `oinstall`.
   - The `-G` option specifies optional secondary groups.

2. Set the password of the `oracle` user as follows:

   ```
   # passwd oracle
   ```

If the `oracle` user exists, but its primary group is not `oinstall`, then enter a command similar to the following, specifying the primary group using the `-g` option and any required secondary groups using the `-G` option:

```
# /usr/sbin/usermod -g oinstall -G dba oracle
```

Checking the Software Requirements

A Linux system must meet the following minimum software requirements, depending on your Linux distribution and version.

Oracle Enterprise Linux 4.0

- The system must be running kernel version 2.6.9-42.0.0.0.1.EL (or later).
- The following packages (or later versions) must be also be installed:
  - binutils-2.15.92.0.2-21
  - compat-db- 4.1.25-9
  - control-center-2.8.0-12
  - gcc-3.4.6-3.1
  - gcc-c++-3.4.6-3.1
  - glibc-2.3.4-2.25
  - glibc-common-2.3.4-2.25
  - glibc-devel-2.3.4-2.25.i386
  - glibc-devel-2.3.4-2.25.x86_64
  - gnome-libs-1.4.1.2.90-44.2.x86_64
  - libstdc++-3.4.6-3.1
  - libstdc++-devel-3.4.6-3.1
  - make-3.80-6.EL4
  - pdksh-5.2.14-30.3
  - sysstat-5.0.5-11.rhel4
  - xscreensaver-4.18-5.rhel4.12

Red Hat Enterprise Linux 3.0 (Update 4 or later)

- The system must be running kernel version 2.4.21-27.EL (or later).
- The following packages (or later versions) must be also be installed:
  - binutils-2.14.90.0.4-35
  - compat-db- 4.0.14-5.x86_64.rpm
  - compat-gcc 7.3-2.96.122.i386.rpm
  - compat-gcc-c++ 7.3-2.96.122.i386.rpm
  - compat-libstdc++- 7.3-2.96.122.i386.rpm
  - compat-libstdc++-devel 7.3-2.96.122.i386.rpm
  - control-center-2.2.01-13
  - gcc-3.2.3-47
  - gcc-c++-3.2.3-47
  - glibc-2.3.2-95.30
  - glibc-devel-2.3.2-95.30.i386
  - glibc-devel-2.3.2-95.30.x86_64

- glibc-common-2.3.2-95.30
- gnome-libs-1.4.1.2.90-34.2
- libstdc++-3.2.3-47
- libstdc++-devel-3.2.3-47
- make-3.79-1.17
- pdksh-5.2.14-21
- sysstat-5.0.5-5.rhel3
- xscreensaver-4.10-8

Red Hat Enterprise Linux 4.0 (Update 1 or later)

- The system must be running kernel version 2.6.9-11.EL (or later).
- The following packages (or later versions) must be also be installed:
  - binutils-2.15.92.0.2-13
  - compat-db-4.1.25-9
  - control-center-2.8.0-12
  - gcc-3.4.3-22.1
  - gcc-c++-3.4.3-22.1
  - glibc-2.3.4-2.9
  - glibc-devel-2.3.4-2.9.i386
  - glibc-devel-2.3.4-2.9.x86_64
  - glibc-common-2.3.4-2.9
  - gnome-libs-1.4.1.2.90-44.1
  - libstdc++-3.4.3-22.1
  - libstdc++-devel-3.4.3-22.1
  - make-3.80-5
  - pdksh-5.2.14-30
  - sysstat-5.0.5-1
  - xscreensaver-4.18-5.rhel4.2

SUSE Linux Enterprise Server 9 (SP1 or later)

- The system must be running kernel version 2.6.5-7.139 (or later).
- The following packages (or later versions) must be also be installed:
  - binutils-2.15.90.0.1.1-32.5
  - gcc-3.3.3-43.24
  - gcc-c++-3.3.3-43.24
  - glibc-2.3.3-98.28
  - glibc-devel-2.3.3-98.28
  - glibc-devel-32bit-9-200506062332

- gnome-libs-1.4.1.7-671.1
- libstdc++-3.3.3-43.24
- libstdc++-devel-3.3.3-43.24
- make-3.80-184.1
- pdksh-5.2.14-780.4
- sysstat-5.0.1-35.1
- xscreensaver-4.16-2.6

To ensure that the system meets these requirements:

1. To determine which version of the operating system is installed, enter the following command:

   ```
   cat /etc/issue
   ```

2. To determine whether the required kernel is installed, enter the following command:

   ```
   uname -r
   ```

   On a Red Hat Enterprise Linux 3.0 system, the output may be as follows:

   ```
   2.4.21-27.EL
   ```

   In this example, the output shows the kernel version (2.4.21) and errata level (27.EL). Kernel updates are available from the Red Hat Network.

   On a Red Hat Enterprise Linux 4.0 system, the output may be as follows:

   ```
   2.6.9-11.EL
   ```

   On a SUSE Linux Enterprise Server 9 system, the output may be as follows:

   ```
   2.6.5-7.191
   ```

   In this example, the output shows the kernel version on the system. Contact SUSE for information about obtaining and installing the kernel updates.

3. To determine whether the required packages are installed, enter commands similar to the following:

   ```
   rpm -q package_name
   ```

   If a package is not installed, or if the version is lower than the required version, then install it from your Linux distribution media or download the required package from your Linux vendor's Web site.

Checking the Hardware Requirements

Oracle SES requires a minimum of 3 gigabytes of disk space. This includes 2.5 gigabytes to install and approximately .5 gigabyte to create the initial Oracle SES index. Additional Oracle SES requirements are based on the amount of data that you need to search. Here are some configuration examples:

To index 100,000 documents:

- 4 gigabytes disk space
- 1 gigabyte RAM

To index 1,000,000 documents:

- 20 gigabytes disk space
- 6 gigabytes RAM

The system must meet the following minimum hardware requirements:

- 512 MB of physical RAM
- 1 GB of swap space (or twice the size of RAM)

  On systems with 2 GB or more of RAM, the swap space can be between one and two times the size of RAM.
- 400 MB of disk space in the /tmp directory
- At least 3 GB of disk space for the Oracle software, depending on the installation type and platform.

To ensure that the system meets these requirements, perform the following steps:

1. To determine the physical RAM size, enter the following command:

   ```
   # grep MemTotal /proc/meminfo
   ```

2. To determine the size of the configured swap space, enter the following command:

   ```
   # grep SwapTotal /proc/meminfo
   ```

3. To determine the amount of free disk space available in the /tmp directory, enter the following command:

   ```
   # df -k /tmp
   ```

4. To determine the amount of free disk on the system, enter the following command:

   ```
   # df -k
   ```

For installation help, including pre-installation tips, see the Oracle SES tutorial:

http://st-curriculum.oracle.com/tutorial/SESAdminTutorial/index.htm

Configuring Kernel Parameters

Before starting the Oracle installation, verify that the parameters shown in the following table are set to values greater than or equal to the recommended value shown. The procedure following the table describes how to verify and set the values.

Table 1 Kernel Parameters

Parameter	Value	File
semmsl	250	/proc/sys/kernel/sem
semmns	32000	
semopm	100	
	128	
shmall	2097152	/proc/sys/kernel/shmall

Table 1 (Cont.) Kernel Parameters

Parameter	Value	File
shmmax	Half the size of physical memory	/proc/sys/kernel/shmmax
shmmni	4096	/proc/sys/kernel/shmmni
file-max	65536	/proc/sys/fs/file-max
ip_local_port_range	1024 65000	/proc/sys/net/ipv4/ip_local_port_range

Note: If the current value for any parameter is higher than the value listed in this table, do not change the value of that parameter.

To view the current value specified for these kernel parameters, and to change them if necessary, follow these steps:

1. Enter commands similar to the following to view the current values of the kernel parameters:

Note: Make a note of the current values and identify any values that you must change. The user must be root to run the commands for kernel parameters.

Table 2 Commands for Kernel Parameters

Parameter	Command
semmsl, semmns, semopm, semmni	/sbin/sysctl -a | grep sem This command displays the value of the semaphore parameters in the order listed.
shmall, shmmax, shmmni	/sbin/sysctl -a | grep shm
file-max	/sbin/sysctl -a | grep file-max
ip_local_port_range	/sbin/sysctl -a | grep ip_local_port_range This command displays a range of port numbers.

2. If the value of any kernel parameter is different than the recommended value, then complete the following steps:
   a. Using a text editor, create or edit the /etc/sysctl.conf file and add or edit lines similar to the following:

Note: Include lines only for the kernel parameter values that you want to change. For the semaphore parameters (kernel.sem), you must specify all four values. However, if any of the current values are larger than the recommended value, then specify the larger value.

```
kernel.shmall = 2097152
kernel.shmmax = 2147483648 (that is, half the physical memory)
kernel.shmmni = 4096
```

```
kernel.sem = 250 32000 100 128
fs.file-max = 65536
net.ipv4.ip_local_port_range = 1024 65000
```

By specifying the values in the `/etc/sysctl.conf` file, they persist when you reboot the system.

b. Enter the following command to change the current values of the kernel parameters:

```
/sbin/sysctl -p
```

Review the output from this command to verify that the values are correct. If the values are incorrect, then edit the `/etc/sysctl.conf` file and enter this command again.

c. On SUSE systems only, enter the following command to cause the system to read the `/etc/sysctl.conf` file when it reboots:

```
# /sbin/chkconfig boot.sysctl on
```

Prerequisite for Running Installer on Red Hat Enterprise Linux 3

Due to a JDK bug, Oracle installer does not work until the `noexec` variable is set to off while booting. To set this variable to off, add the following option in the `/boot/grub/grub.conf` file for the booting kernel line:

```
set noexec=off
```

Setting Shell Limits for the oracle User

To improve the performance of the software on Linux systems, you must increase the following shell limits for the `oracle` user:

Table 3 Shell Limits for oracle User

Shell Limit	Item in limits.conf	Hard Limit
Maximum number of open file descriptors	`nofile`	65536
Maximum number of processes available to a single user	`nproc`	16384

To increase the shell limits:

1. Add the following lines to the `/etc/security/limits.conf` file:

```
*    soft    nproc   16384
*    hard    nproc   16384
*    soft    nofile  1024
*    hard    nofile  65536
```

2. Add the following line to the `/etc/pam.d/login` file, if it does not already exist:

```
session    required     /lib/security/pam_limits.so
```

3. Depending on the oracle user's default shell, make the following changes to the default shell start-up file:

- For the Bourne, Bash, or Korn shell, add the following lines to the `/etc/profile` file:

```
if [ $USER = "oracle" ]; then
        if [ $SHELL = "/bin/ksh" ]; then
              ulimit -p 16384
              ulimit -n 65536
        else
              ulimit -u 16384 -n 65536
        fi
fi
```

- For the C or tcsh shell, add the following lines to the `/etc/csh.login` file:

```
if ( $USER == "oracle" ) then
        limit maxproc 16384
        limit descriptors 65536
endif
```

4. Reboot the system after setting shell limits.

   If it is not rebooted, then a pre-requisite check fails with the following error:

```
========================================================================
Error:
Checking Shell Limits ...
Actual Result: Detected the following existing settings ...
Failed >>    Limit on maximum number of processes for a single user: 7168
Failed >>    Limit on maximum number of open file descriptors: 1024
Check complete. The overall result of this check is: Failed <<<<
Problem: The Installer has detected that the limits specified for the
reported SHELL parameters do not match the recommended limits.
Recommendation: The recommended values for the SHELL limits are:
<1> For tcsh, csh and zsh:
    a. maximum number of open file descriptors: 65536
    b. maximum number of processes for a single user: 16384
<2> For ksh, bash and sh:
    a. maximum number of open file descriptors: 65536(hard); 1024(soft)
    b. maximum number of processes for a single user: 16384(hard);
2047(soft)
Refer to the documentation for instructions on setting the reported SHELL
limits to the recommended values.
========================================================================
```

Installing on a Port Number Less Than 1024

Oracle SES must be installed by a non-root user. However, Linux and UNIX operating systems require that only root users can bind to ports less than 1024. Follow these steps to install Oracle SES on a port number less than 1024:

1. During installation, specify a port greater than or equal to 1024 (for example, 7777).
2. After the installation is complete, follow the instructions in the following section, "Changing the Oracle SES Middle Tier Port", to change to a port number less than 1024 (for example, 80).

Changing the Oracle SES Middle Tier Port

To change the Oracle SES middle tier port, follow these steps:

1. Shutdown the middle tier with the following command:

   ```
   $ORACLE_HOME/bin/searchctl stop
   ```

2. Edit the value for the `port` attribute in `$ORACLE_HOME/oc4j/j2ee/OC4J_SEARCH/config/http-web-site.xml`. (Make sure that the new port is not already in use.)
3. To change to a port less than 1024:
   a. Run `chgrp -R root $ORACLE_HOME/jdk`
   b. Log on as the root user and perform step 5.
4. To change from a port that was less than 1024 to a port that is greater than or equal to 1024:
   a. Log on as the root user.
   b. Run the following:

      ```
      chown -R <user> $ORACLE_HOME/search/opmn
      $ORACLE_HOME/oc4j/j2ee/OC4J_SEARCH/persistence
      ```

      where *<user>* is the user that installed Oracle SES
   c. Log off from root user and log on as the user that installed Oracle SES.
5. Start the middle tier with the following command:

   ```
   $ORACLE_HOME/bin/searchctl start
   ```

Note:

`$ORACLE_HOME` represents the directory where Oracle SES was installed.

Setting the Correct Locale

The correct environment parameter (`LANG`, `NLS_LANG` and `LC_ALL`) should be set before Oracle SES is installed.

For file sources to successfully crawl and display multibyte environments, the locale of the machine that starts the Oracle SES server must be the same as the target file system. This way, the Oracle SES crawler can "see" the multibyte files and paths.

If the locale is different in the installation environment, then Oracle SES should be restarted from the environment with the correct locale. For example, for a Korean environment, either set `LC_ALL` to `ko_KR` *or* set both `LC_LANG` and `LANG` to `ko_KR.KSC5601`. Then run `searchctl restartall` from an xterm.

Installation Tasks

For easy instructions on installing Oracle SES, see the Installation Tips tutorial:

http://st-curriculum.oracle.com/tutorial/SESAdminTutorial/index.htm

In the following instructions, the disc mount point is referred to as `/SD_DVDROM`. If your mount point is different, then substitute the correct mount point name for all references to `/SD_DVDROM`.

To start the installer:

1. Ensure that you have checked all the minimum requirements, as described in "Pre-Installation Tasks" on page 2.
2. Log on to the computer as the user who will install Oracle SES. (Oracle SES must be installed by a non-root user.)
3. Insert the Oracle Secure Enterprise Search DVD.
4. If your computer does not have automount, then see "Mounting the DVD-ROM" on page 15 for steps on mounting the DVD-ROM manually.
5. Start up the installer:

   ```
   cd
   /SD_DVDROM/runInstaller
   ```

   This launches Oracle Universal Installer.

   Note: Do not run the installer from the mount point directory. The `cd` command changes your current directory to your home directory, so you do not start the installer from the mount point.

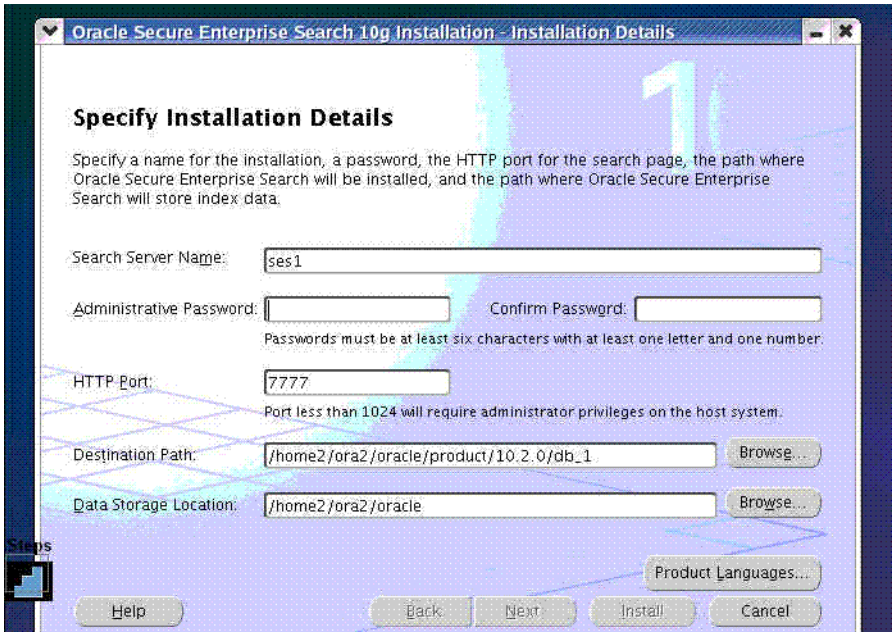
   In the Oracle Universal Installer, the only value that you must specify is the administrative password. The remaining values are set to a default, but they can be overridden. Following is the list of the installation parameters:

   - **Search Server Name**: Name for your search server. To connect multiple Oracle SES instances to the same directory (authorization) server, each instance must have a distinct name.
   - **Administrative Password**: The password that you will later use to log on to the administration tool.
   - **HTTP Port**: The port on which the Oracle SES middle tier will listen. For example, if you installed Oracle SES on host myhost.oracle.com and you specify port 7890, then your search page URL will be `http://myhost.oracle.com:7890/search/query/search`.

     See Also: "Installing on a Port Number Less Than 1024" on page 12

   - **Destination Path**: The location where Oracle SES software is installed.
   - **Data Storage Location**: The location where Oracle SES will store its data.

   The following screenshot shows the Oracle Universal Installer screen.



Installing on a System with an Existing Oracle SES Installation

You can install this release (or previous releases) of Oracle SES more than once on the same system as long as each installation is installed in a separate Oracle home directory. Use different values for the **Search Server Name**, **HTTP Port**, and **Destination Path** parameters.

You cannot install products from one release of Oracle SES into an Oracle home directory of a different release. For example, you cannot install release 10.1.8.1 software into an existing 10.1.6 Oracle home directory. If you attempt to install this release into an Oracle home directory that contains software from an earlier Oracle release, then the installation fails.

Mounting the DVD-ROM

Follow these steps if your computer does not automount the DVD-ROM:

1. Insert the DVD-ROM.
2. Log in as the `root` user:

   ```
   su
   Password:
   ```

3. Create the DVD-ROM mount point directory:

   ```
   /usr/bin/mkdir /SD_DVDROM
   ```

4. Mount the DVD-ROM drive on the mount point directory:

   ```
   mount -t iso9660 /dev/dvd /SD_DVDROM
   ```

   In the preceding example, `/SD_DVDROM` is the disc mount point directory and `/dev/dvd` is the device name for the disc device.

5. Log out from the `root` user.

   ```
   exit
   ```

Silent Installation Tasks

A silent installation has no graphical output and no input by the user. It is accomplished by supplying Oracle Universal Installer with a response file and specifying the `-silent` flag on the command line. Use silent installation when you want similar installations on more than one computer. Additionally, you can use silent installation when performing the Oracle SES installation from a remote location using the command line.

Selecting a Response File

Before performing a silent installation, you must provide information specific to your installation in a response file. The installer will fail if you attempt an installation using a response file that is not configured correctly. Response files are text files that you can create or edit in a text editor.

Response files (`server.rsp`) are located in the `/response` directory on Disk 1 of the Oracle SES DVD. You must edit the response file according to your requirements for silent installation.

To use a response file, first copy it from the DVD to your system. For example:

1. Go to the `/response` directory.
2. Copy the `server.rsp` file to your system hard drive:

```
# cp server.rsp /private/ses/response/server.rsp
```

Editing the Response File

Use any text editor to edit the response file to include information specific for your system. You must specify values for variables in your response file. Each variable listed in the response file is associated with a comment, which identifies the variable type. For example:

```
string = "Sample Value"
Boolean = True or False
Number = 1000
StringList = {"StringValue 1", "String Value 2"}
```

The values that are given as `<Value Required>` must be specified for silent installation. Remove the comment from the variable values in the response file before starting the Oracle SES installation.

Specifying a Response File and Starting the Installation

Before you specify a response file, ensure that all the values in the response file are correct.

To make Oracle Universal Installer use the response file at installation time, specify the location of the response file as a parameter when starting Oracle Universal Installer. To perform a silent installation, use the `-silent` parameter:

```
# ./runInstaller -silent -responseFile absolute_path_and_filename
```

Important: During installation, response files may be copied to subdirectories in the Oracle home. When the installation completes successfully, these copies are removed. If the installation fails, however, these copies may not be removed. If you have provided passwords or other sensitive information in your response files, then delete any copies of the response files that remain in your file system.

The success or failure of silent installations is logged in the `installActions.log` file. Additionally, the silent installation creates the `silentInstall.log` file. The log files are created in the `$ORACLE_HOME/oraInventory/logs` directory.

The `silentInstall<Date_Time>.log` file contains the following line if the installation was successful:

```
The installation of Oracle Secure Enterprise Search was successful.
```

The corresponding `installActions<Date_Time>.log` file contains specific information regarding installation.

Security Tips for Silent Installations

The response file contains the installation password in clear text. To minimize security issues, follow these guidelines:

- Set the permissions on the response files so that they are readable only by the operating system user performing the silent installation.
- If possible, remove the response files from the system after the silent installation is completed.

Error Handling

Values for variables that are of the wrong context, format, or type are treated as if no value were specified. Variables that are outside any section are ignored.

If you attempt a silent installation with an incorrect or incomplete response file, or if Oracle Universal Installer encounters an error, such as insufficient disk space, the installation fails.

Post-Installation Tasks

This section describes how to complete postinstallation tasks after you have installed the software.

The following URLs indicate a successful installation:

Search: `http://host:port/search/query/search`

Administration tool: `http://host:port/search/admin/index.jsp` (Log on using the password specified during installation.)

Certifications and Patches

The Oracle SES administration tool and default query application are certified on the following browsers:

- Firefox 1.0, 1.0.1, 1.0.6, 1.0.7, 1.5

- Internet Explorer 6.0, 7.0
- Netscape 7.1, 7.2
- Mozilla 1.7.3

The requirements and certifications included in this installation guide were current at the time this guide was published. See the certification matrix on the Oracle*Metalink* Web site for the most up-to-date information.

See Also: "Oracle Support Services" on page 19

Uninstallation Tasks

To uninstall Oracle SES, run `$ORACLE_HOME/install/deinstall_ses` as the user who installed Oracle SES.

Note: If the Oracle SES instance was bound to a port less than 1024 and the middle tier ran as root user, then after uninstallation there could be files left under `$ORACLE_HOME`. After the uninstall completes, log on as the root user and delete those files.

Upgrading Oracle Secure Enterprise Search

There is no direct upgrade support to release 10.1.8.1.

- To upgrade from Oracle SES release 10.1.6: Upgrade to release 10.1.8, then install the patch for release 10.1.8.1.
- To upgrade from Oracle SES release 10.1.8: Install the patch for release 10.1.8.1.

See Also:

- *Oracle Secure Enterprise Search Administrator's Guide*, Appendix A "Upgrading Oracle Secure Enterprise Search"
- *Oracle Secure Enterprise Search Installation and Upgrade Guide* for release 10.1.8

Restarting Oracle Secure Enterprise Search

The tool for starting and stopping the search engine is `searchctl`. To restart Oracle SES after rebooting, navigate to the `$ORACLE_HOME/bin` directory where Oracle SES is installed and run `searchctl restartall`. Users are prompted for a password when running `searchctl` commands on Linux and UNIX platforms.

For detailed steps, see the Startup / Shutdown lesson in the Oracle SES tutorial:

`http://st-curriculum.oracle.com/tutorial/SESAdminTutorial/index.htm`

What to Do Next?

To become familiar with Oracle Secure Enterprise Search, Oracle suggests that you complete the following tasks:

- Follow the Oracle Secure Enterprise Search tutorial:

  http://st-curriculum.oracle.com/tutorial/SESAdminTutorial/index.htm

- Log on to the Oracle SES administration tool, using the user name and password set in the installation. With the administration tool, you can:
  - Define sources to search
  - Configure and schedule the crawling of the sources
  - Monitor the status and performance of crawling and search

  Click the **Help** link in the top right corner of any page in the administration tool for context-sensitive help.

- In a production environment, where a load balancer or other monitoring tools are used to ensure system availability, Oracle SES can also be easily monitored through the following URL: `http://host:port/monitor/check.jsp`. The URL should return the following message: **Oracle Secure Enterprise Search instance is up.**

  Note: This message is not translated to other languages, because system monitoring tools may need to byte-compare this string.

  If Oracle Secure Enterprise Search is not available, then the URL returns either a connection error or the HTTP error code 503.

Additional Resources

To download free release notes, installation documentation, white papers, or other collateral, visit Oracle Technology Network (OTN). You must register online before using OTN; registration is free and can be done at

http://www.oracle.com/technology/membership/

If you already have a user name and password for OTN, then you can go directly to the documentation section of OTN at

http://www.oracle.com/technology/documentation

Oracle Support Services

If you purchased Oracle Product Support, you can call Oracle Support Services for assistance. Oracle Support Services include phone assistance, version updates, and access to our service offerings. You have access to phone support 24 hours a day, 7 days a week. In the U.S.A., you can call Product Support at **1-800-223-1711**.

Make sure you have your CSI (CPU Support Identifier) number ready when you call. Keep the CSI number for your records, because it is your key to Oracle Support Services. The Oracle Store sends the CSI number to you in an e-mail alert when it processes your order. If you do not have your CSI number and you are in the U.S.A., you can look up your CSI number by accessing our online Order Tracker, which provides detailed order information. Go to the Oracle Store and click on Order Tracker located above the top navigation bar.

For Oracle Support Services locations outside the U.S.A., call your local support center for information about how to access support. To find the local support center in your country, visit the Support Web Center at

http://www.oracle.com/support

At the Support Web Center you will find information on Oracle Support Services, such as:

- Contact information
- Instructions on how to access electronic services
- Helpful Web sites
- Support resources
- Oracle Support Portfolio
- Oracle Support Services news

With Oracle Product Support, you have round-the-clock access to Oracle*Metalink*, the Oracle Support Services premier Web support offering. Oracle*Metalink* offers you access to installation assistance, product documentation, and a technical solution knowledge base.

It has technical forums, where you can post questions about your Oracle products and receive answers from Oracle Technical Support Analysts and other Oracle users. The questions and answers remain posted for the benefit of all users.

Oracle*Metalink* options include:

- Service Request (SR) access
- Patch downloads
- Bug database query access
- Product life-cycle information

You can access Oracle*Metalink* at

https://metalink.oracle.com

Quick Reference

Resource	Contact Information or Web Site
Oracle*Metalink*	https://metalink.oracle.com
Purchase additional products, full-use licenses, version updates, and documentation in the U.S.A.	http://oraclestore.oracle.com
Access technical resources for developers	http://www.oracle.com/technology/index.html
Access information about technical support	http://www.oracle.com/support
Locate local Oracle Support Centers outside the U.S.A.	http://www.oracle.com/support

Resource	Contact Information or Web Site
Locate local Oracle offices outside the U.S.A	http://www.oracle.com/global/index.html
Call Client Relations in the U.S.A.	1-800-223-1711
Speak with your sales representative in the U.S.A.	1-800-ORACLE-1
Obtain TTY access to technical support in the U.S.A.	1-800-446-2398

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http://www.oracle.com/accessibility/

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Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

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