Oracle® Secure Enterprise Search

Installation Guide

Release 11.2.1

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This guide provides optional information on how to manually add Oracle Secure Enterprise Search (SES) release 11.2.1 to an existing installation of Oracle Database 11*g* Release 2 (11.2.0.2) and to WebLogic Server release 10.3.4 (PS3). Oracle SES release 11.2.1 does not support earlier releases of Oracle Database and WebLogic Server.

This guide contains the following sections:

- Preinstallation Tasks
- Installation and Configuration Tasks
- Postinstallation Tasks
- Starting and Stopping Oracle SES
- Deinstallation Tasks
- What to Do Next
- Documentation Accessibility

> **See Also:**
> - *Oracle Database Installation Guide*
> - *Oracle Fusion Applications Installation Guide*

Preinstallation Tasks

This section contains the following topics:

- Oracle SES Browser Certifications
- Checking the Hardware Requirements
- Checking the Software Requirements

Oracle SES Browser Certifications

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

- Firefox 3.*x*
- Internet Explorer 7.*x*, 8.*x*
- Safari 4.*x*

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Checking the Hardware Requirements

Oracle SES requires approximately 1.7 GB for the initial Oracle SES index. Additional Oracle SES requirements are based on the amount of data that you need to search.

For example, to index 100,000 documents:

- 4 GB disk space

- 2 GB RAM

To index 1,000,000 documents:

- 20 GB disk space

- 6 GB RAM

> **Note:** The number of CPUs on the server host affects the performance of concurrent queries over a prolonged period of time. Oracle recommends that you use systems with two or more CPUs for production deployments that serve 1000 or more users.

Checking the Software Requirements

Oracle Database 11*g* Release 2 (11.2.0.2) and WebLogic Server release 10.3.4 (PS3) must be installed before you can install Oracle SES release 11.2.1.

Use only the browsers listed in "Oracle SES Browser Certifications" on page 1 when using the Web-based Administration tool or the default Search application.

Oracle Database

Oracle Database must be release 11.2.0.2. If you have an earlier release of Oracle Database that you want to use for this installation, then you must first upgrade the database to release 11.2.0.2.

Oracle Database can be installed on a single computer or on a cluster that uses Oracle Real Application Clusters.

> **Note:** As of SES release 11.2.1, the mid-tier and the database are installed separately and do not need to be co-located on the same host, nor do they need to use the same operating system.

Oracle WebLogic Server

Oracle WebLogic Server must be release 10.3.4 (PS3). If you have an earlier release, then you must upgrade Oracle WebLogic Server to release 10.3.4 (PS3) before installing Oracle SES release 11.2.1.

Installation and Configuration Tasks

This section contains the following topics:

- Running the Repository Creation Utility

- Removing Oracle SES Components From Oracle Database

- Adding Oracle SES 11.2.1 Components to Oracle Database 11g Release 2 (11.2.0.2)

- [Configuring WebLogic Server for Oracle SES 11.2.1](#)

Running the Repository Creation Utility

The Repository Creation Utility (RCU) enables you to remove the Oracle SES 11.1 database components and create the Oracle SES 11.2 database components.

To run the Repository Creation Utility on Linux systems:

1. Create a directory where you can unzip RCU, such as `/scratch/rcu`:

   ```
   sudo mkdir /scratch/rcu
   ```

2. Change directories to `ORACLE_HOME/search/rcu`.

   ```
   cd $ORACLE_HOME/search/rcu
   ```

3. Unzip `sesRcuHome.zip` into the new directory:

   ```
   unzip sesRcuHome.zip -d /scratch/rcu
   ```

4. Open RCU with the following command (where `options` indicates the optional command line parameters that you may use):

   ```
   /scratch/rcu/bin/rcu options
   ```

   You can provide optional parameters on the command line so that the fields in RCU are filled in automatically. For information about these options, enter the following command at the operating system prompt:

   ```
   rcu --help
   ```

To run the Repository Creation Utility on Windows systems:

1. Using Windows Explorer, create a folder where you can unzip RCU, such as `C:\temp\rcu`. Do not use spaces in the file name.

2. Unzip `ORACLE_HOME\search\rcu\sesRcuHome.zip` into the new folder.

3. Open RCU from the Run box or a command window with a command like this one:

   ```
   C:\temp\rcu\bin\rcu.bat options
   ```

   You can provide some information on the command line so that the fields in RCU are filled in automatically. For information about these options, enter this command at the operating system prompt:

   > **See Also:** *Oracle Fusion Middleware Repository Creation Utility User's Guide*

Removing Oracle SES Components From Oracle Database

If Oracle Database release 11.2.0.1 or earlier is already installed, you must ensure that earlier Oracle SES components are removed before using the new Oracle SES 11.2 back-end components.
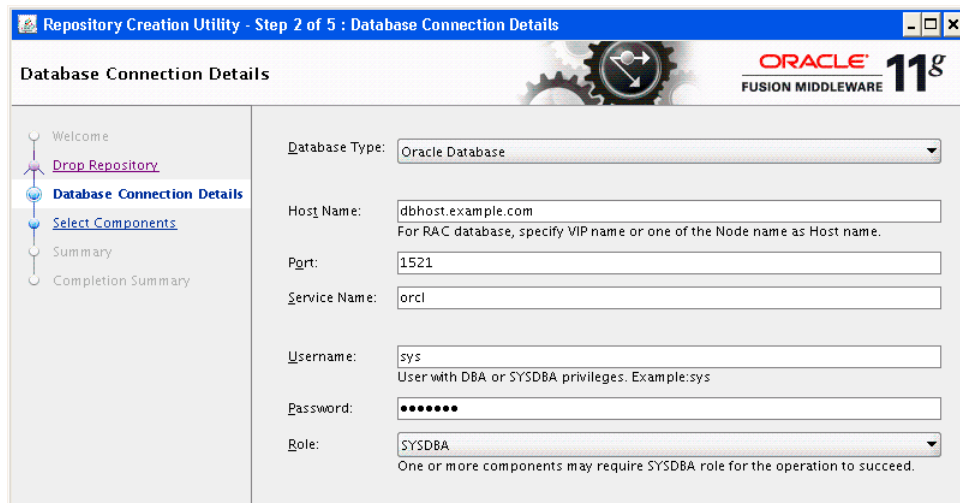
To remove Oracle SES back-end components:

1. Open the Repository Creation Utility (RCU) for Oracle Fusion Middleware, as described in "Running the Repository Creation Utility" on page 3.

2. Follow the steps of the wizard as described in Table 1. Click **Next** to move from one page to the next.

Table 1   Using RCU to Drop the SES 11.1 Schemas

Page	Title	Action
1	Welcome	None.
2	Create Repository	Select **Drop**.
3	Database Connection Details	Complete all fields. Any values that you entered as RCU command options are filled in automatically here. ■ **Database Type**: Oracle Database ■ **Username**: SYS ■ **Role**: SYSDBA
4	Select Components	Select **SEARCH**.
5	Summary	Review the details, then click **Drop** to drop the tablespaces.
6	Completion Summary	Note the location of the log files.

Figure 1   RCU Database Connection Details

Adding Oracle SES 11.2.1 Components to Oracle Database 11g Release 2 (11.2.0.2)

The following procedure adds Oracle SES 11.2.1 back-end components to Oracle Database release 11.2.0.2.

To add Oracle SES 11.2 components to Oracle Database:

1. Open the Repository Creation Utility (RCU) for Oracle Fusion Middleware, as described in "Running the Repository Creation Utility" on page 3.

2. Follow the steps of the wizard as described in Table 2. Click **Next** to move from one page to the next.

Table 2   Using RCU to Add the SES 11.2 Schemas

Page	Title	Action
1	Welcome	None.
2	Create Repository	Select **Create**.
3	Database Connection Details	Complete all fields. Any values that you entered as RCU command options are filled in automatically here. ■ **Database Type**: Oracle Database ■ **Username**: SYS ■ **Role**: SYSDBA
4	Select Components	Select **SEARCH**.
5	Schema Passwords	Enter passwords for the SEARCHSYS and SEARCHSYS_DATA schemas.
6	Custom Variables	Enter Y for yes or N for no depending on whether you have licenses for these database options: ■ Advanced Compression ■ Oracle Partitioning
7	Map Tablespaces	Retain the default values for the tablespaces.
8	Summary	Review the details, then click **Create** to create the tablespaces.
9	Completion Summary	Note the location of the log files, then click Close to exit RCU.

Configuring WebLogic Server for Oracle SES 11.2.1

The procedure in this section configures WebLogic Server 10.3.4 as the middle tier for Oracle SES 11.2.1. After completing this procedure, you can run the Oracle SES Administration tool and the default Search application.

To configure WebLogic Server:

1. Open the Fusion Middleware Configuration Wizard:

   ■ On Linux, change to *ORACLE_HOME*/wls/wlserver/common/bin and enter:

   ```
   config.sh
   ```

   ■ On Windows, change to C:*ORACLE_HOME*\wls\wlserver\common\bin and click:

   ```
   config.bat
   ```

2. Follow the steps of the wizard as described in Table 3. Click **Next** to move from one page to the next.

3. Start WebLogic Server from the operating system command line:

   ```
   startWebLogic.sh
   ```

Table 3   Creating and Extending a WebLogic Server Domain

Page	Title	Action
1	Welcome	Select **Create a new WebLogic domain**.
2	Select Domain Source	Select **Generate a domain configured automatically**, then **Oracle Secure Enterprise Search - 11.2.1.0**.
3	Configure Administrator User Name and Password	Enter a name of your choosing for the domain name.
4	Configure Administrator User Name and Password	Enter a password for the `weblogic` user.
5	Configure JDBC Component Schema	Select: ■ **Production Mode** as the WebLogic startup mode. ■ **JRockit SDK 1.6.0_20** as the available JDK.
6	Configure JDBC Component Schema	Select **SearchAdminDS Schema** as the Component Schema, then enter the host, port, and service name for Oracle Database, as shown in Figure 2. Select **SearchQueryDS Schema** as the Component Schema. Re-enter the host, port, and service name.
7	Test Component Schema	Click **Select All**, then **Test Connections**. If the test fails, then correct the connection information for the two schemas.
8	Select Optional Configuration	Leave all check boxes empty.
9	Configuration Summary	Review the details, then click **Create**.
10	Creating Domain	Note the URL for the Admin Server.
11	Completion Summary	Click **Close**.

Figure 2   WebLogic Domain JDBC Component Configuration

Postinstallation Tasks

Refer to My Oracle Support at https://support.oracle.com to check for the latest patches for Oracle Database and Oracle Fusion Middleware.

Starting and Stopping Oracle SES

This section contains procedures for starting and stopping Oracle SES. Note that you can start, suspend, and stop Oracle SES from the WebLogic administration console by going to http://wls_host:admin_port/console.

> **Note:** Startup and shutdown for the database and listener services are managed independently of the Oracle midtier.

To start Oracle SES:

1. Verify that Oracle Database is up and running. If it is down, start it now. You can use the tool of your choice, such as Oracle Enterprise Manager or SQL*Plus.

2. Start WebLogic Server.

   - For Linux:

     ```
     startWebLogic.sh
     ```

   - For Windows:

     ```
     startWebLogic.bat
     ```

3. Log in as the weblogic user with the password set under "Configuring WebLogic Server for Oracle SES 11.2.1" on page 5.

4. In a separate window, start Oracle SES.

   - For Linux:

     ```
     startManagedWebLogic.sh search_server1
     ```

   - For Windows:

     ```
     StartManagedWebLogic.bat search_server1
     ```

5. Log in again as the weblogic user.

To stop Oracle SES:

1. Use the tool of your choice, such as Oracle Enterprise Manager or SQL*Plus. Oracle Database must be up and running to use these tools.

2. Start WebLogic Server.

   - For Linux:

     ```
     startWebLogic.sh
     ```

   - For Windows:

     ```
     startWebLogic.bat
     ```

3. Log in as the weblogic user with the password set under "Configuring WebLogic Server for Oracle SES 11.2.1" on page 5.

4. In a separate window, stop Oracle SES.

- For Linux:

  ```
  stopManagedWebLogic.sh search_server1
  ```

- For Windows:

  ```
  StopManagedWebLogic.bat search_server1
  ```

5. If needed, log in again as the `weblogic` user.

Deinstallation Tasks

The recommended procedure for deinstalling Oracle SES is to run `uninstall_search_software.sh` from the Oracle Fusion Middleware home location as follows:

```
MW_HOME/Oracle_SES/install/uninstall_search_software.sh
```

To remove the search-specific back-end components from the database home, run the `uninstall_search_software.sh` script from *ORACLE_HOME*/install/.

After running `uninstall_search_software.sh` from either the Fusion Middleware home or the database home, you must run the Repository Creation Utility to completely remove all the Oracle SES 11.2 back-end components. Follow the procedure under "Removing Oracle SES Components From Oracle Database" on page 3.

What to Do Next

To become familiar with Oracle Secure Enterprise Search, Oracle recommends that you take advantage of the resources described in this section.

- Follow the Oracle Secure Enterprise Search tutorial:

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

- Log in to the Oracle SES Administration GUI, using the user name and password set in the installation. With the Administration GUI 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 GUI 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.

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