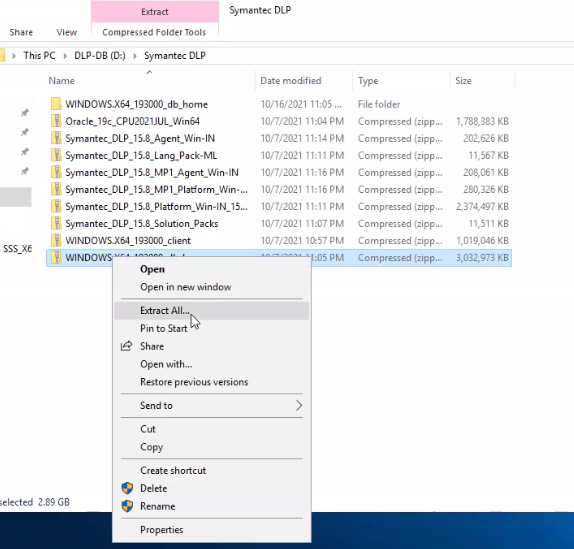
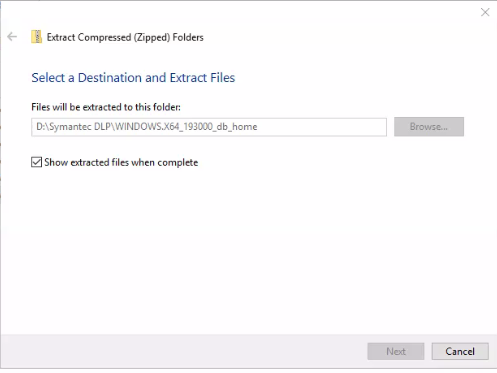
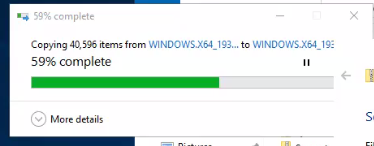
**Oracle 19c installation**

* **Pre-requisite (Oracle and Enforce installation on Windows OS)**
  + Below steps for Two Tier (Oracle and Enforce installed on the same server) installation
  + Download Oracle and DLP Installation software
  + Extract DLP 15.8 platform files to D:\temp folder

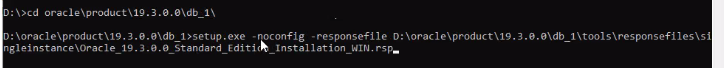






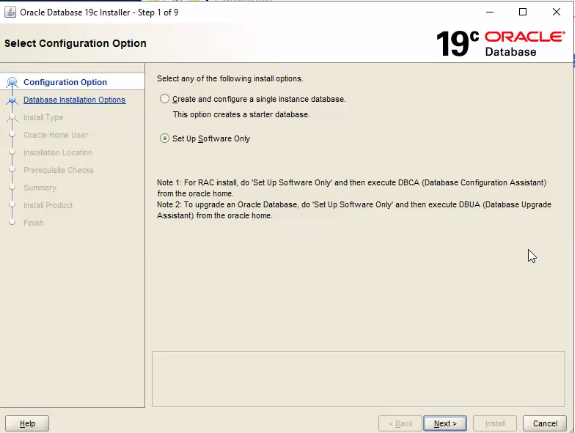
* + Prepare the Oracle installation location by completing one of the following steps based on your Oracle database installation status:
    - If you are installing the Oracle database software for the first time, complete the following steps:
      * Create the directory: **D:\Oracle\product\19.3.0.0\db\_1**
      * Copy the Oracle 19c software file to D**:\oracle\product\19.3.0.0\db\_1**
      * Extract the Oracle 19c software to the directory D:\oracle\product\19.3.0.0\db\_1 (Wait for few minutes for the extraction process to complete).
    - Set the ORACLE\_HOME environment variable by completing the following steps:
      * Go to **Control Panel** > **System** and **Security** > **System** > **Advanced System Settings** to display the System Properties dialog.
      * Click the **Advanced** tab.
      * Click **Environment Variables** and click **New** under **System Variables** to display the **New System Variable dialog**.
      * Enter **ORACLE\_HOME** in the Variable name field.
      * Enter **D:\oracle\product\19.3.0.0\db\_1**
      * Click **New**
      * Enter **PATH** in the Variable name field.
      * Enter **D:\oracle\product\19.3.0.0\db\_1** for the path variable.
* **Oracle 19c Installation**
  + To install the Oracle software, use the command prompt to navigate to the db\_1 directory (**D:\oracle\product\19.3.0.0\db\_1)**. This is the directory where you extracted the Oracle 19c files. Run the following command (line break added for legibility):

**setup.exe -noconfig –responseFile D:\Oracle\product\19.3.0.0\ db\_1\tools\responsefiles\ singleinstance\Oracle\_19.3.0.0\_Standard\_Edition\_Installation\_WIN.rsp**

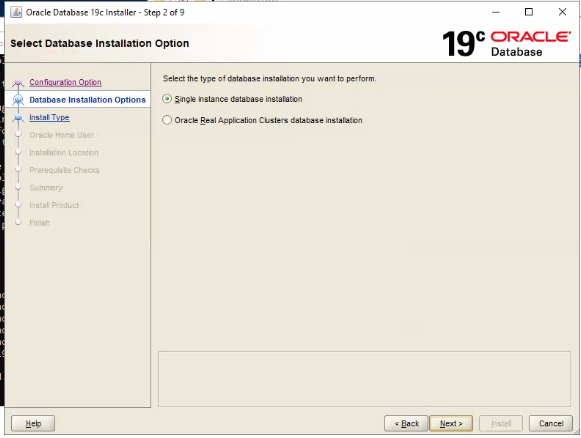


The installation wizard appears with pre-selected values that are drawn from the installation response file.

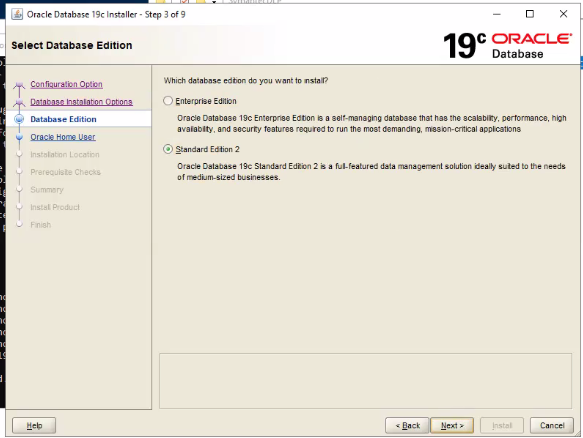
* + In **Configuration Options**, Select **Set Up Software Only**. Click **Next**



* + In **Database Installation Options**, select **Single instance database installation** and click **Next.**

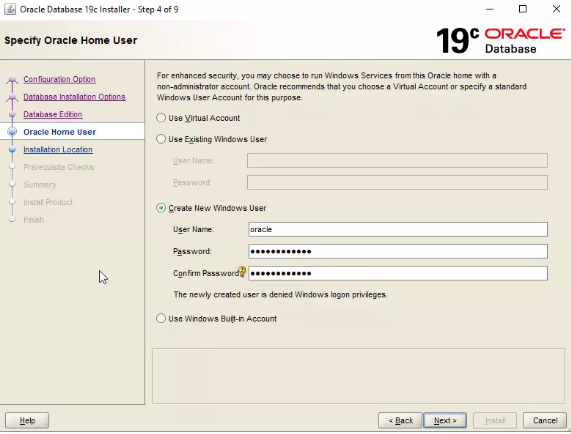


* + In **Select Database Edition**, select **Standard Edition 2** and click **Next**.

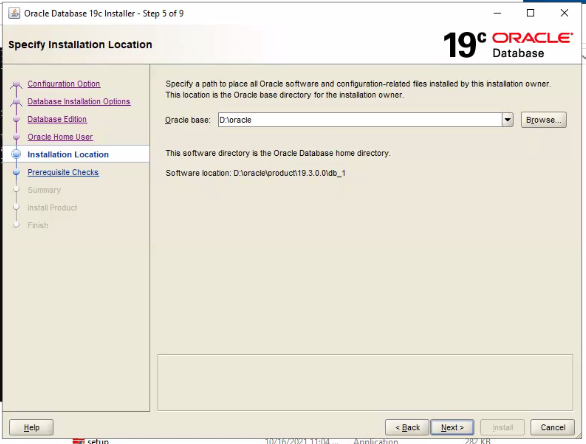


* + In **Oracle Home User**, Enter a user name and password for the Oracle Home User. The default name for the Oracle Home User is oracle. Click Next.

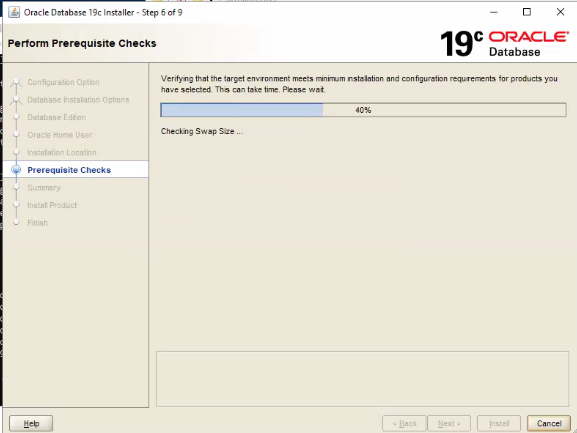
Note: The Oracle Home User is the Windows user account that runs Windows services. The Oracle Home User is different from the Symantec DLP Oracle user account.



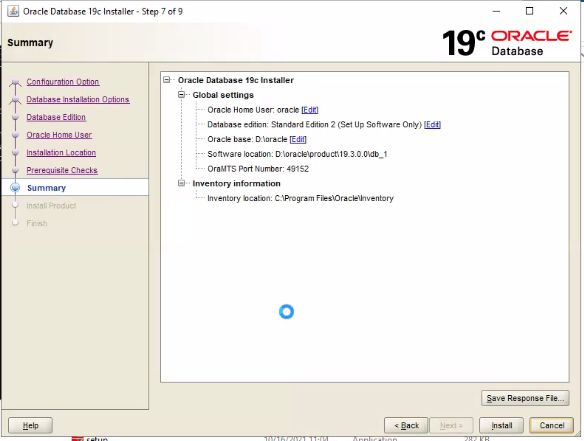
* + In **Installation Location**, Verify the Oracle Base and Software Location paths fields are populated with the following information and click Next.
    - Oracle Base: **D:\oracle**
    - Software Location: **D:\oracle\product\19.3.0.0\db\_1**



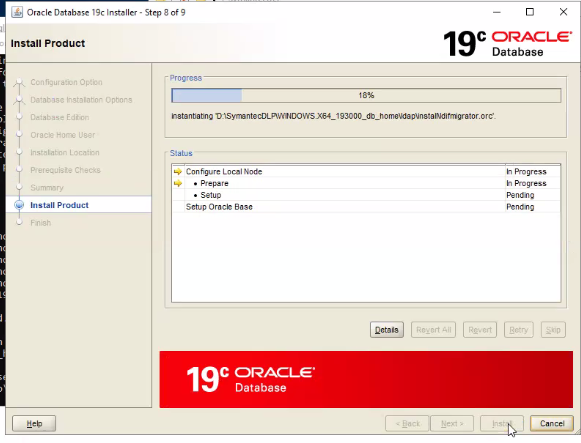
* + In **Prerequisite Checks**, Lists the prerequisite check status. Click **Next**.



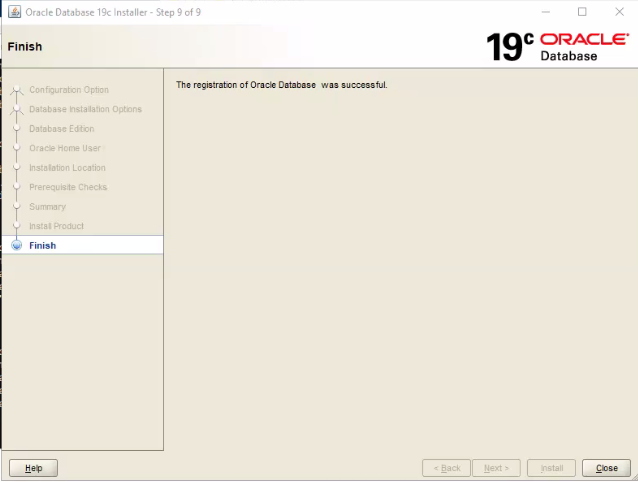
* + In **Summary**, verify and click **Install** to begin the installation. The installer application installs the Oracle 19c software to your computer.



* + Wait for few minutes for the installation to complete.



* + In **Finish,** click **Close** to exit the installer application.

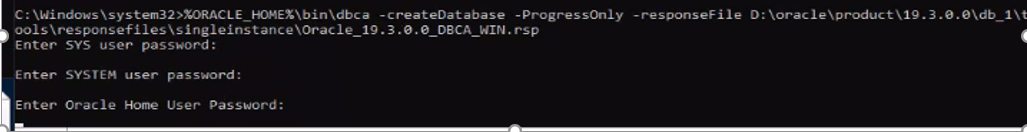


* **Creation of Symantec DLP database on Windows system**
  + Set the ORACLE\_HOME environment variable for your new installation.
  + Open a command prompt, and enter:

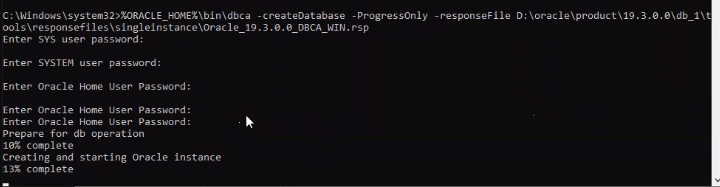
**set ORACLE\_HOME=D:\oracle\product\19.3.0.0\db\_1**

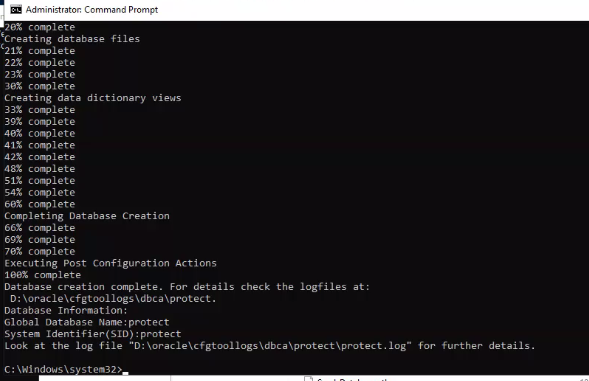
* + Browse to the folder **D:\Oracle\product\19.3.0.0\db\_1\tools\templates\singleInstance\**
  + Copy the following database files **Template\_for\_64\_bit\_WIN.dbt** to **D:\oracle\product\19.3.0.0\db\_1\assistants\dbca\templates** folder
  + Via **command prompt** as **admin**, Execute the following command:

**%ORACLE\_HOME%\bin\dbca –createDatabase –ProgressOnly -responseFile D:\Oracle\product\19.3.0.0\db\_1\tools\responsefiles\singleinstance\Oracle\_19.3.0.0\_DBCA\_WIN.rsp**



* + Enter the SYS user password at the prompt.
  + Enter the SYSTEM user password at the prompt.
  + Follow these guidelines to create acceptable passwords:
    - Passwords cannot contain more than 30 characters.
    - Passwords cannot contain double quotation marks, commas, or backslashes.
    - Avoid using the & character.
    - Passwords are case-sensitive by default. You can change the case sensitivity through an Oracle configuration setting.
    - If your password uses special characters other than \_ , #, or $, or if your password begins with a number, you must enclose the password in double quotes when you configure it.
* The database creation process displays on the terminal window and can take up to few minutes to complete.



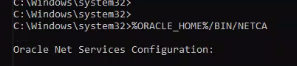


* **Configuring TNS Listener and Net Service Name**

Once the Oracle database is installed, configure the TNS Listener and the Net Service Name:

* + Via **command prompt** as **admin**, Start the Oracle Net Configuration Assistant by running the following command:

**%ORACLE\_HOME%\bin\netca**



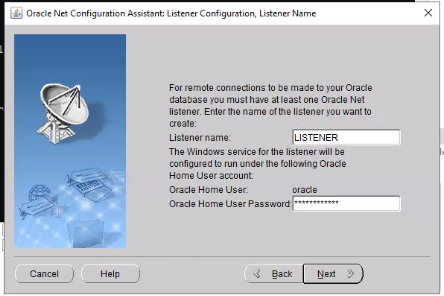
* + In **Welcome**, Select **Listener configuration** and click **Next**.



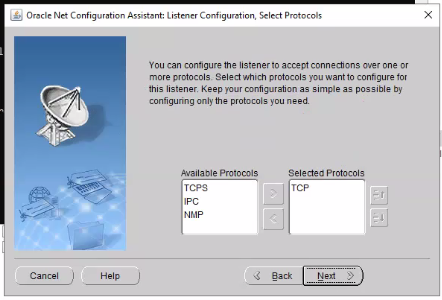
* + In **Listener Configuration, Listener name**. Enter a **listener name** and the password for your **Oracle Home User**, then click **Next**.

Note: Use the default listener name, LISTENER. Unless you must use a different name.

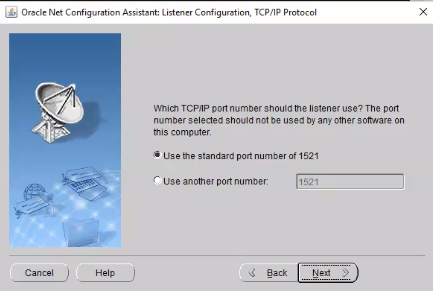
The Oracle Home User password. Enter the same password created during Oracle DB installation.



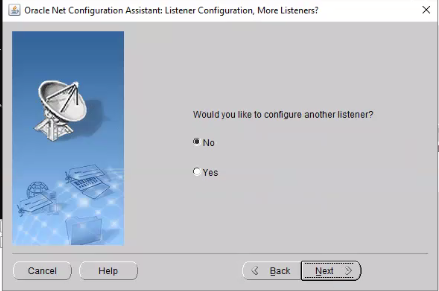
* + In **Listener Configuration, Select Protocols**. Selected Protocols **TCP** and click **Next**.



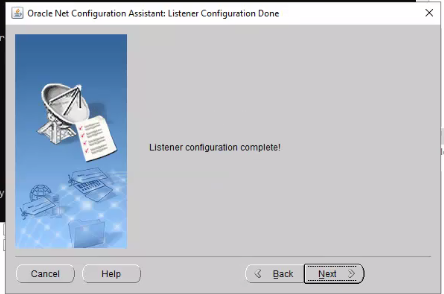
* + In **Listener Configuration, TCP/IP Protocol**, Select **Use the standard port number of 1521** and click **Next**.



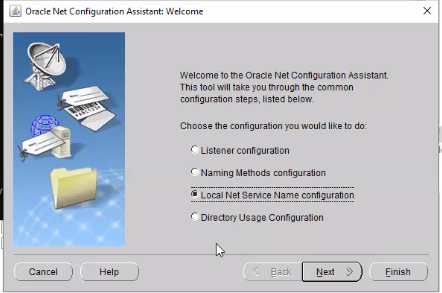
* + In **Listener Configuration, More Listeners?** Select **No** and click **Next**.



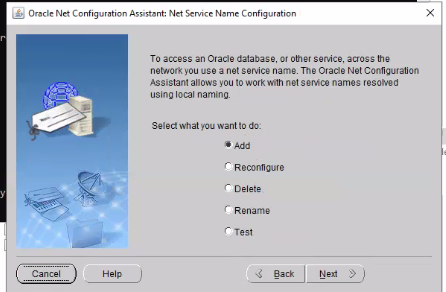
* + In **Listener Configuration Done**. Click **Next**.



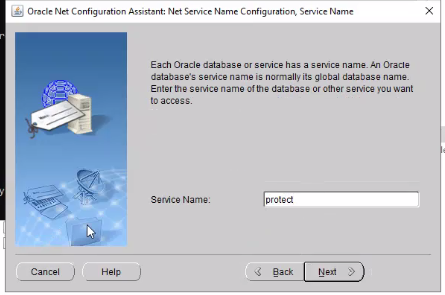
* + Configure **Net service**.
  + In **Welcome**, Select **Local Net Service Name configuration** and click **Next**.



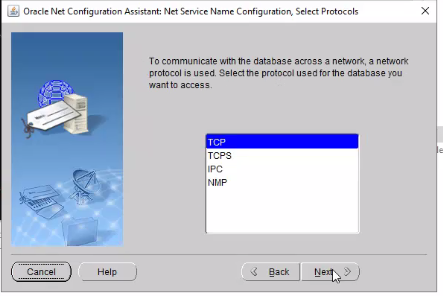
* + In **Net Service Name Configuration**, Select **Add** and click **Next**.



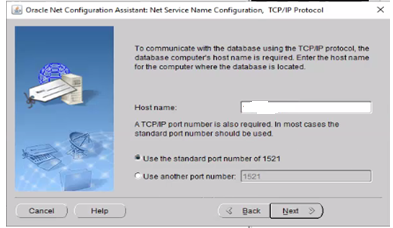
* + In **Net Service Name Configuration**, Service Name Enter **protect** in the **Service Name field** and click **Next**.



* + In **Net Service Name Configuration, Select Protocols**, Select **TCP** and click **Next**.

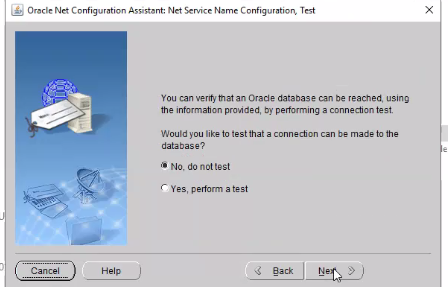


* + In **Net Service Name Configuration, TCP/IP Protocol**, Enter the **host name / IP address** of **Oracle server computer** in the Host name field. Select **Use the standard port number of 1521**(the default value). Click **Next**.

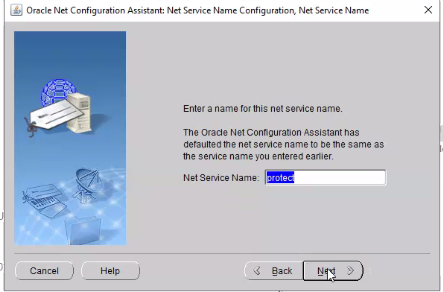


* + In **Net Service Name Configuration, Test**. Select **No, do not test** and click **Next**.

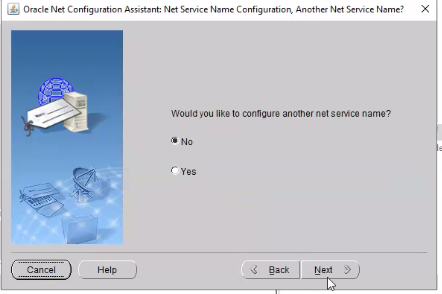
Do not test the service configuration, because the listener has not yet started.



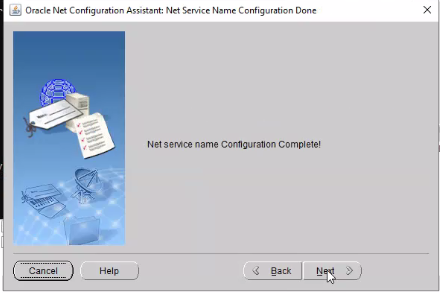
* + In **Net Service Name Configuration, Net Service Name**. Select and accept the default name of **protect** and click **Next**.



* + In **Net Service Name Configuration, Another Net Service Name?** Select **No** and click **Next**.



* + In **Net Service Name Configuration Done**. Click **Next**.

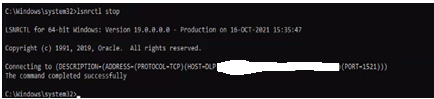


* + Click **Finish**.



* + **Modifying** the **listener.ora** file
  + Via **command prompt** as an **admin**. Execute the following command:

**lsnrctl stop**



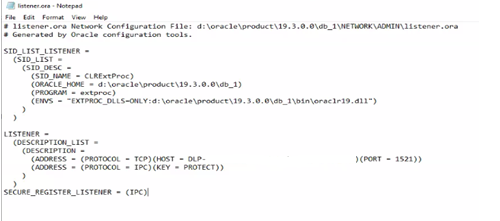
* + Open the following file in a text editor:

**%ORACLE\_HOME%\network\admin\listener.ora**

Locate the following line: (ADDRESS = (PROTOCOL = IPC)(KEY = **<key\_value>**)) Change **<key\_value>** to **PROTECT**

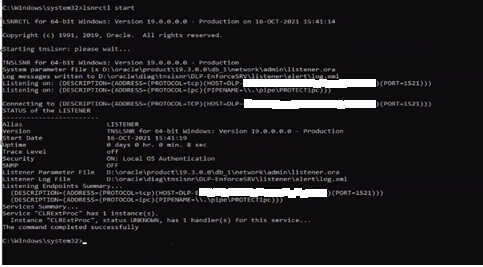
Add the following line to the end of the file: **SECURE\_REGISTER\_LISTENER = (IPC)**

Save the file and close the text editor.



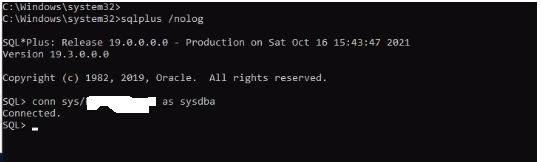
* + Via **command prompt** as an **admin**. Execute the following command:

**lsnrctl start**



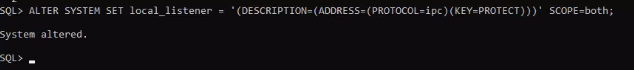
* + Via **command prompt** as an **admin**. Run the following command to connect to the database using SQL\*Plus:

**sqlplus sys/<password> as sysdba**



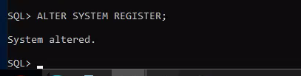
* + Once connected, Run the following command:

**ALTER SYSTEM SET local\_listener = '(DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=PROTECT)))' SCOPE=both;**



* + Run the following command to register the listener:

**ALTER SYSTEM REGISTER;**



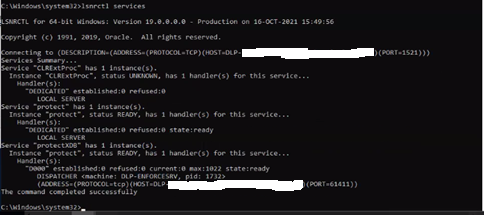
* + Exit SQL\*Plus by running the following command:

**exit**

* + Run the following command to verify the change:

**lsnrctl services**

The command output will display the below message.

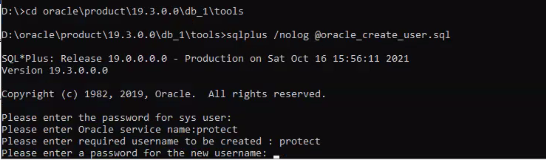


* **Creation of an Oracle user account and name**
  + Via **command prompt** as an **admin**. Browse to the folder **D:\Oracle\product\19.3.0.0\db\_1\tools**
  + Run the following command using SQL\*Plus to run the **oracle\_create\_user.sql** script:

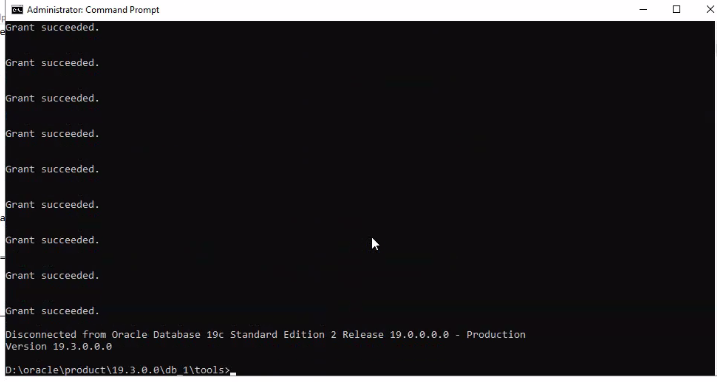
**sqlplus /nolog @oracle\_create\_user.sql**



* + Please enter the password for **sys user** prompt, enter the **password** for the **SYS user**.
  + Please enter **Oracle service name** prompt, enter **protect**
  + Please enter **required username** to be created prompt, enter **protect**for the user name
  + Please enter a password for the **new username** prompt, enter password for the username **protect**
  + Enter

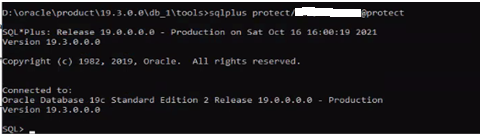


* + Follow these guidelines to create acceptable passwords:
    - Passwords cannot contain more than 30 characters.
    - Passwords cannot contain double quotation marks, commas, or backslashes.
    - Avoid using the & character.
    - Passwords are case-sensitive by default. You can change the case sensitivity through an Oracle configuration setting.
    - If your password uses special characters other than \_, #, or $, or if your password begins with a number, you must enclose the password in double quotes when you configure it.
  + New user **protect** will be created with the required permissions

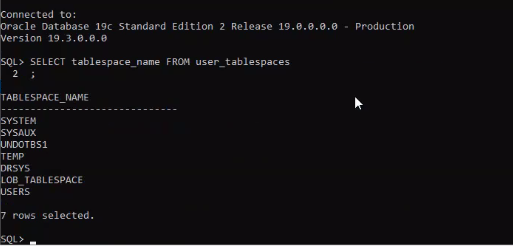


* + Confirm **tablespaces** are available for the Oracle user **protect** created by running the following SQL\*Plus commands in the listed order:

**sqlplus protect/<password>@protect**



**SELECT tablespace\_name FROM user\_tablespaces;**



* + Exit SQL\*Plus by running the following command:

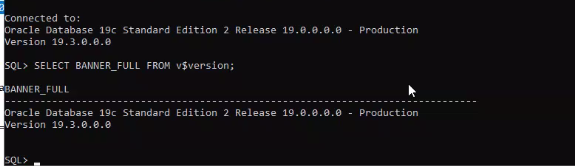
**Exit**

* **Verifying Symantec Data Loss Prevention database**
  + After you create the Symantec DLP database, verify that it was created correctly.
  + Open a new command prompt as an admin. Start SQL\*Plus, and log on as **SYS** user

**sqlplus sys/<password>@protect as sysdba**

* + Run the following query

**SELECT BANNER\_FULL FROM v$version;**



* + Verify the output from the query contains information that correctly identifies the software components for the installed version of Oracle 19c.