

**APPLIES TO:**

ECC6.0 SR2 Installation

**SUMMARY**

This article explains ECC6.0 SR2 Installation on RHE Linux5.4.

**AUTHOR:**

K.VENKATA RAMU.

**COMPANY:**

Willsys Infosystems Pvt. Ltd.,

**CREATED ON:**

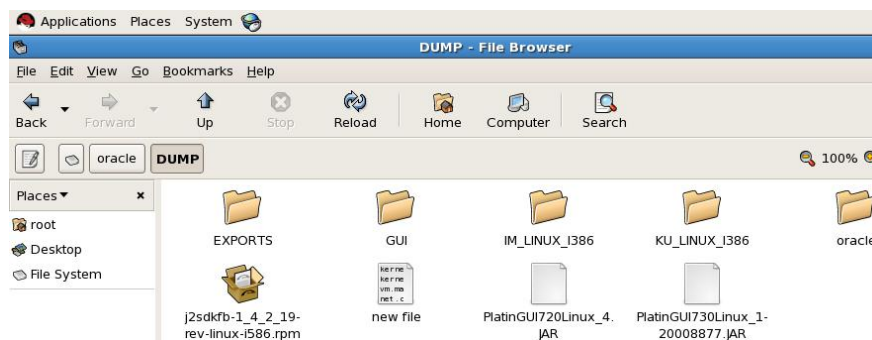
14th March 2012.



## ECC6.0 INSTALLATION ON RHEL

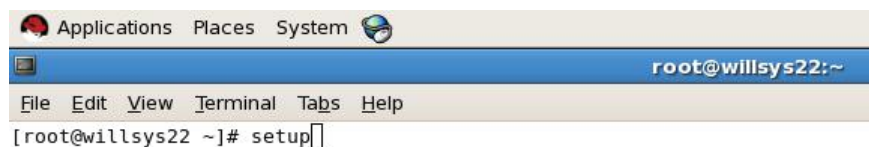
### Step 1:

- To install ECC6.0 (SAP) the following software required:
  1. Operating System along with Patches and Fixes.
  2. Database along with Patches and Fixes.
  3. SAP Installation Master which is independent of components but specific to OS and BIT.
  4. SAP Kernel, it is independent of components like ERP, CRM, SRM, etc but specific to OS/DB/32bit/64bit/Unicode/Non-Unicode.
  5. SAP Export or SAP DATA DVD's are specific to Component and independent of OS and DB.
  6. SAP JAVA Components provides the components that are installable and configurable on JAVA engine.
  7. SAP GUI provides presentation server GUI executables /binaries /libraries in the PRES1(CD/DVD)(Win GUI) and PRES2(CD/DVD)(JAVA GUI).



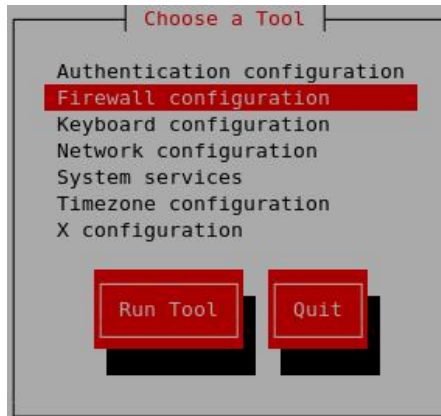
### Step 2:

- To set up the 'Firewall Configuration' and 'Network Configuration' execute the setup command.



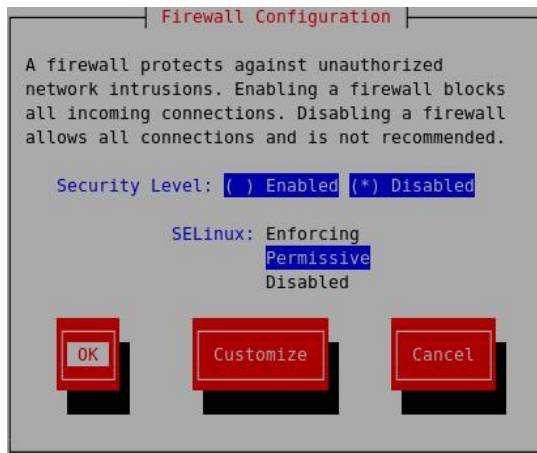
**Step 3:**

- Select 'Firewall Configuration' and press 'ENTER' button on keyboard.



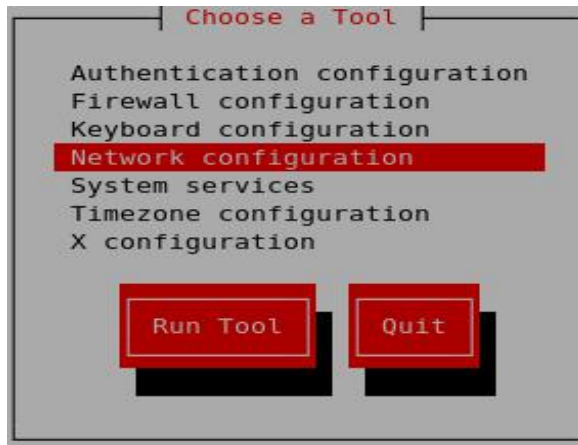
**Step 4:**

- Disable the Firewall i.e. '(\*) Disabled' and SELinux 'PERMISSIVE' and click on 'OK'.



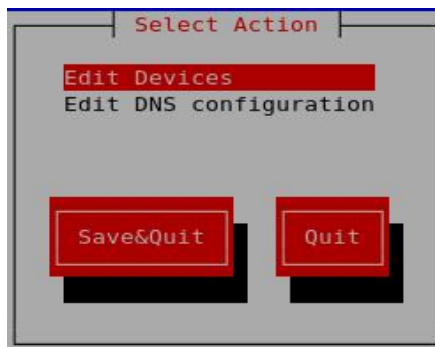
**Step 5:**

Select 'Network Configuration' and press 'ENTER' button on keyboard.



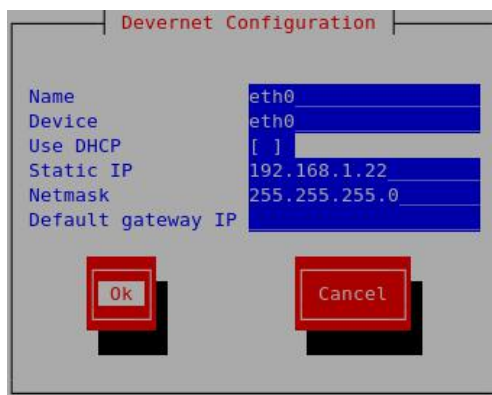
**Step 6:**

- Select 'Edit Devices' and press 'ENTER' button on keyboard.



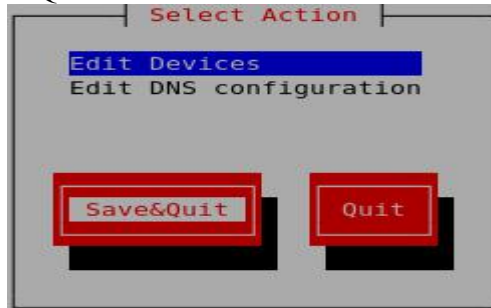
**Step 7:**

- Provide Static IP i.e. 192.168.1.22 and Netmask 255.255.255.0. and click on 'OK'.



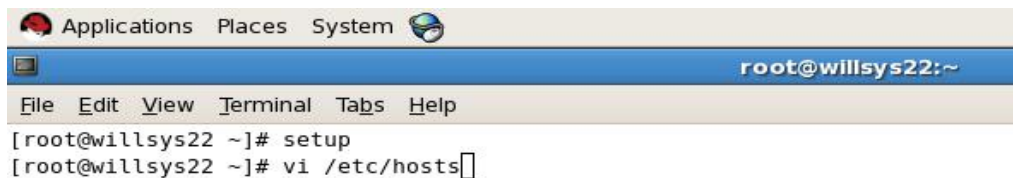
### Step 8:

- Select 'SAVE&QUIT' and click on 'ENTER' button n keyboard.



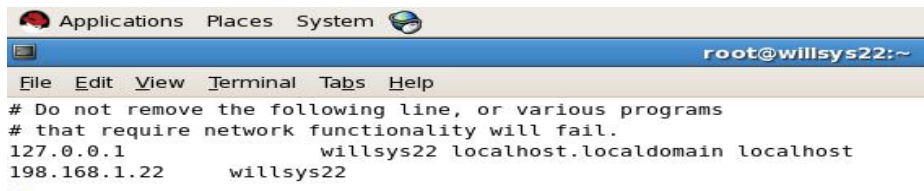
### Step 9:

- Maintain 'IP address' and 'hostname' in /etc/hosts by executing following command.



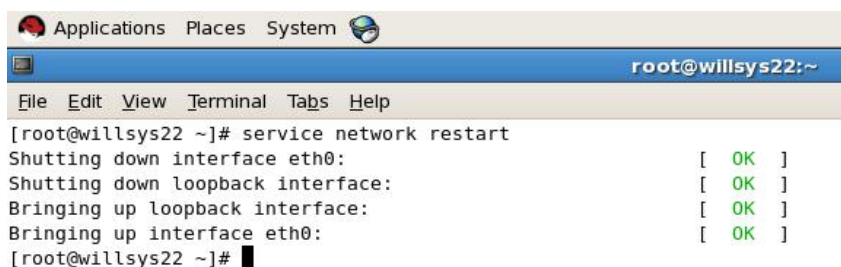
### Step 10:

- Click on 'INSERT' button and enter IP address and Hostname and save it also 'ping IP'.



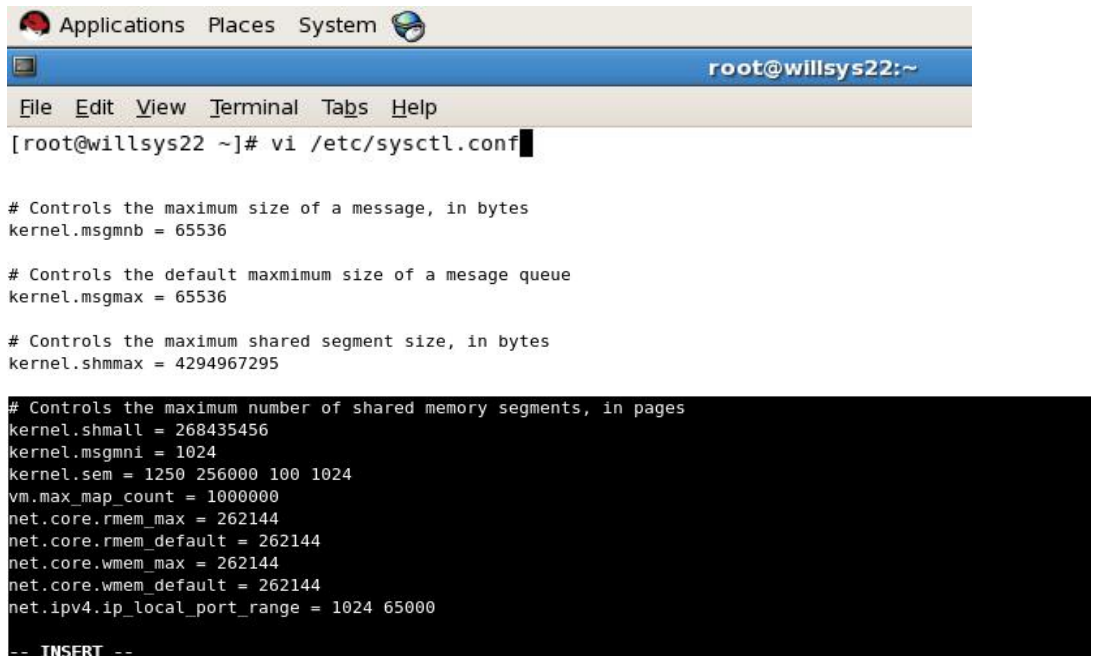
### Step 11:

- Execute 'Service network restart' command given below.



### Step 12:

- Execute 'vi /etc/sysctl.conf' to specify the kernel parameters .



```
Applications Places System
root@willsys22:~
File Edit View Terminal Tabs Help
[root@willsys22 ~]# vi /etc/sysctl.conf

# Controls the maximum size of a message, in bytes
kernel.msgmnb = 65536

# Controls the default maximum size of a message queue
kernel.msgmax = 65536

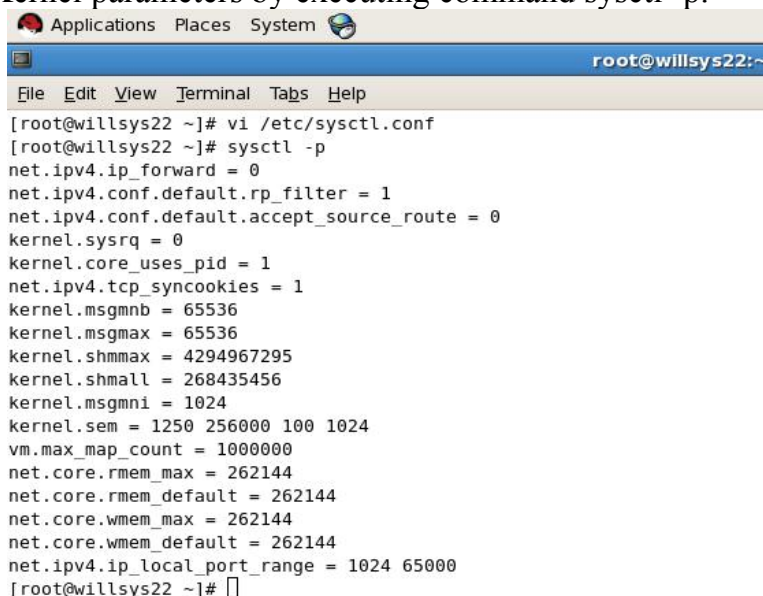
# Controls the maximum shared segment size, in bytes
kernel.shmmax = 4294967295

# Controls the maximum number of shared memory segments, in pages
kernel.shmall = 268435456
kernel.msgmni = 1024
kernel.sem = 1250 256000 100 1024
vm.max_map_count = 1000000
net.core.rmem_max = 262144
net.core.rmem_default = 262144
net.core.wmem_max = 262144
net.core.wmem_default = 262144
net.ipv4.ip_local_port_range = 1024 65000

-- INSERT --
```

### Step 13:

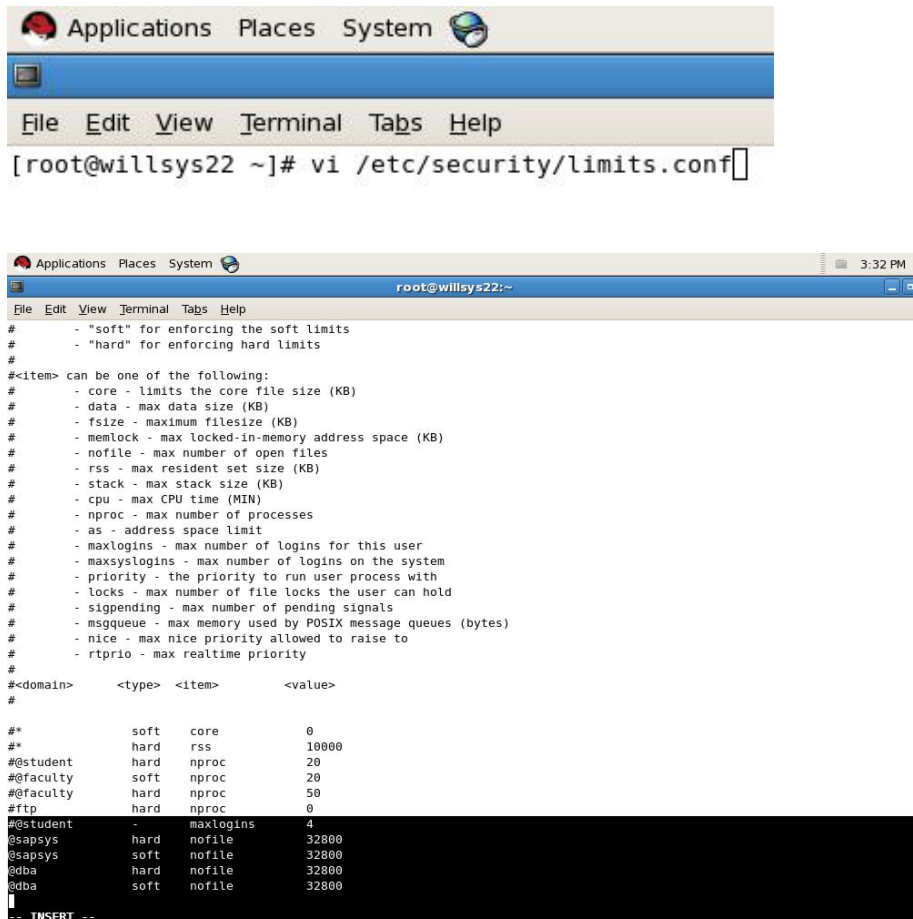
- Activate the Kernel parameters by executing command sysctl -p.



```
Applications Places System
root@willsys22:~
File Edit View Terminal Tabs Help
[root@willsys22 ~]# vi /etc/sysctl.conf
[root@willsys22 ~]# sysctl -p
net.ipv4.ip_forward = 0
net.ipv4.conf.default.rp_filter = 1
net.ipv4.conf.default.accept_source_route = 0
kernel.sysrq = 0
kernel.core_uses_pid = 1
net.ipv4.tcp_syncookies = 1
kernel.msgmnb = 65536
kernel.msgmax = 65536
kernel.shmmax = 4294967295
kernel.shmall = 268435456
kernel.msgmni = 1024
kernel.sem = 1250 256000 100 1024
vm.max_map_count = 1000000
net.core.rmem_max = 262144
net.core.rmem_default = 262144
net.core.wmem_max = 262144
net.core.wmem_default = 262144
net.ipv4.ip_local_port_range = 1024 65000
[root@willsys22 ~]#
```

**Step 14:**

- Specify the Memory Limits by using the command `vi /etc/security/limits.conf`.

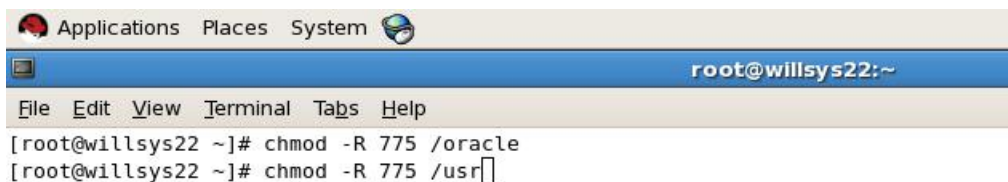


```
[root@willsys22 ~]# vi /etc/security/limits.conf
```

```
# - "soft" for enforcing the soft limits
# - "hard" for enforcing hard limits
#
#<item> can be one of the following:
# - core - limits the core file size (KB)
# - data - max data size (KB)
# - fsize - maximum filesize (KB)
# - memlock - max locked-in-memory address space (KB)
# - nofile - max number of open files
# - rss - max resident set size (KB)
# - stack - max stack size (KB)
# - cpu - max CPU time (MIN)
# - nproc - max number of processes
# - as - address space limit
# - maxlogins - max number of logins for this user
# - maxsyslogins - max number of logins on the system
# - priority - the priority to run user process with
# - locks - max number of file locks the user can hold
# - sigpending - max number of pending signals
# - msgqueue - max memory used by POSIX message queues (bytes)
# - nice - max nice priority allowed to raise to
# - rtprio - max realtime priority
#
#<domain> <type> <item> <value>
#
#* soft core 0
#* hard rss 10000
#@student hard nproc 20
#@faculty soft nproc 20
#@faculty hard nproc 50
#ftp hard nproc 0
#@student - maxlogins 4
@sapsys hard nofile 32800
@sapsys soft nofile 32800
@dba hard nofile 32800
@dba soft nofile 32800
-- INSERT --
```

**Step 15:**

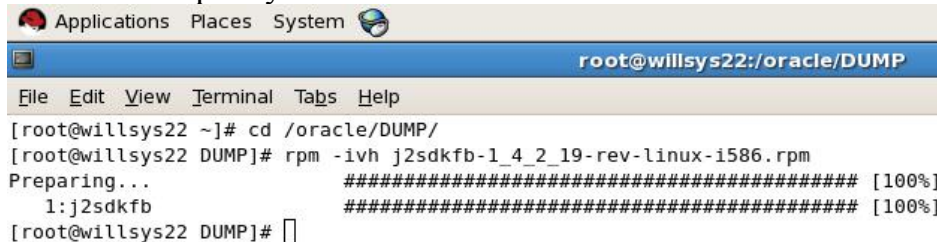
- Give the Permissions to 'oracle' and 'usr' directories.



```
[root@willsys22 ~]# chmod -R 775 /oracle
[root@willsys22 ~]# chmod -R 775 /usr
```

### Step 16:

- Install the Java and specify the Environment Variables.



```
Applications Places System
root@willsys22:/oracle/DUMP
File Edit View Terminal Tabs Help
[root@willsys22 ~]# cd /oracle/DUMP/
[root@willsys22 DUMP]# rpm -ivh j2sdkfb-1_4_2_19-rev-linux-i586.rpm
Preparing... ##### [100%]
 1:j2sdkfb ##### [100%]
[root@willsys22 DUMP]#
```

### Step 17:

- Check the version of Java by executing the command ‘java –version’ and specify the environment variables.

```
export JAVA_HOME=/usr/java/j2sdk1.4.2.19|
export PATH=/usr/java/j2sdk1.4.2.19/bin:$PATH:$HOME/bin
export LD_LIBRARY_PATH=/oracle/W22/102_32/lib/./sapmnt/W22/exe
export UMASK=022
```

### Step 18:

- Install the SAP system by going to the Installation Master Directory.



```

root@willsys22:/oracle/DUMP/IM_LINUX_I386
File Edit View Terminal Tabs Help
[root@willsys22 ~]# cd /oracle/DUMP/
[root@willsys22 DUMP]# ls -lrt
total 104824
-rwxrwxr-x 1 root root 437 Jan 12 2004 new file
drwxrwxr-x 4 root root 4096 Aug 28 2011 EXPORTS
drwxrwxr-x 6 root root 4096 Aug 28 2011 KU_LINUX_I386
drwxrwxr-x 6 root root 4096 Aug 28 2011 oracle
drwxrwxr-x 3 root root 4096 Aug 28 2011 GUI
-rwxrwxr-x 1 root root 35570418 Aug 28 2011 j2sdkkfb-1_4_2_19-rev-linux-1586.rpm
m
-rwxrwxr-x 1 root root 33072621 Aug 30 2011 PlatinGUI720Linux_4.JAR
-rwxrwxr-x 1 root root 38505940 Mar 19 2013 PlatinGUI730Linux_1-20008877.JAR
drwxrwxr-x 13 root root 4096 Feb 4 17:42 IM_LINUX_I386
[root@willsys22 DUMP]# cd IM_LINUX_I386/
[root@willsys22 IM_LINUX_I386]# ls -lrt
total 24700
drwxrwxr-x 3 root root 4096 Aug 28 2011 SCM05
drwxrwxr-x 2 root root 4096 Aug 28 2011 TRANS
drwxrwxr-x 3 root root 4096 Aug 28 2011 SRM60
drwxrwxr-x 3 root root 4096 Aug 28 2011 SRM05
drwxrwxr-x 3 root root 4096 Aug 28 2011 SOLMAN40
drwxrwxr-x 3 root root 4096 Aug 28 2011 NW045
drwxrwxr-x 2 root root 4096 Aug 28 2011 JAR
drwxrwxr-x 4 root root 4096 Aug 28 2011 ERP05
drwxrwxr-x 3 root root 4096 Aug 28 2011 CRM52
drwxrwxr-x 3 root root 4096 Aug 28 2011 CRM05
drwxrwxr-x 4 root root 4096 Aug 28 2011 COMMON
-rwxrwxr-x 1 root root 1084 Aug 28 2011 resources.dtd
-rwxrwxr-x 1 root root 7946 Aug 28 2011 startInstGui.sh
-rwxrwxr-x 1 root root 22081246 Aug 28 2011 sapinst
-rwxrwxr-x 1 root root 546679 Aug 28 2011 resourcepool.xml
-rwxrwxr-x 1 root root 1765752 Aug 28 2011 product.catalog
-rwxrwxr-x 1 root root 1035 Aug 28 2011 messages.dtd
-rwxrwxr-x 1 root root 37 Aug 28 2011 LABEL.ASC
-rwxrwxr-x 1 root root 700374 Aug 28 2011 messages.xml
-rwxrwxr-x 1 root root 2292 Aug 28 2011 catalog.dtd

```

- Execute the sapinst file by using command. /sapinst.

```

oot@willsys22 IM_LINUX_I386]# ./sapinst
=====] - extracting... done!

arting GuiServer using:
sr/bin/java -cp /tmp/sapinst_exe.30412.1429524370/JAR/instgui.jar:/tmp/sapinst_exe.30412.1429524370/JAR/inqmyxml.jar -
ecurity.egd=file:/dev/urandom SDTServer config=jar:sdtserver.xml guiport=21212 sapinsthost=localhost sapinstport=21200
rt=true

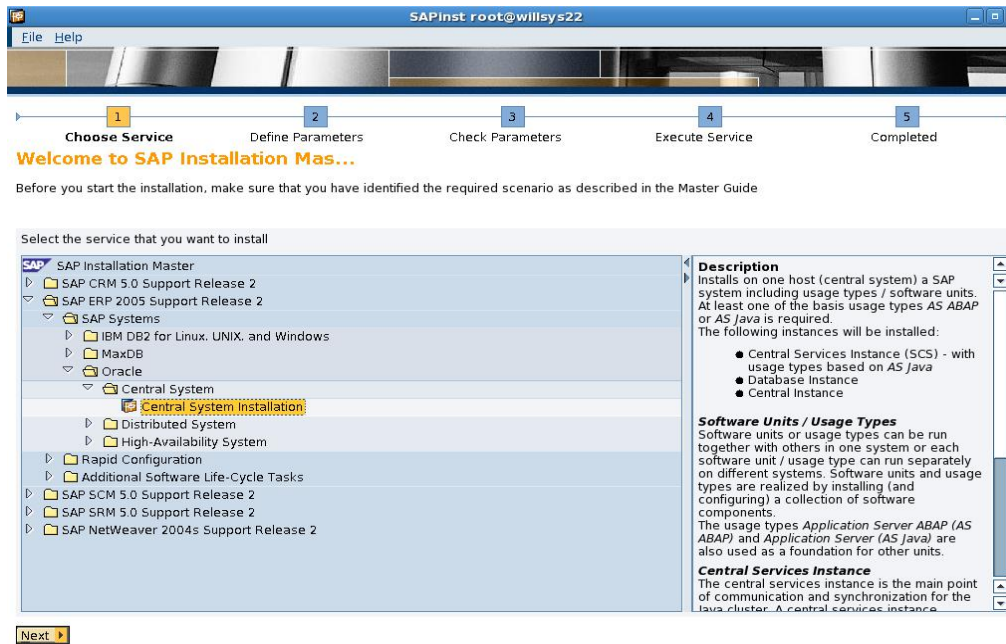
ad resource pool /oracle/DUMP/IM_LINUX_I386/resourcepool.xml

engine: no GUI connected; waiting for a connection on host willsys22, port 21200 to continue with the installation


```

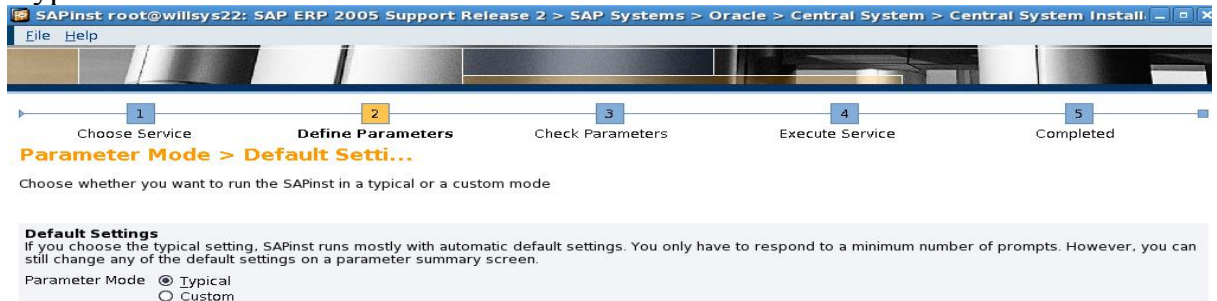
**Step 19:**

- Click on ‘NEXT’.



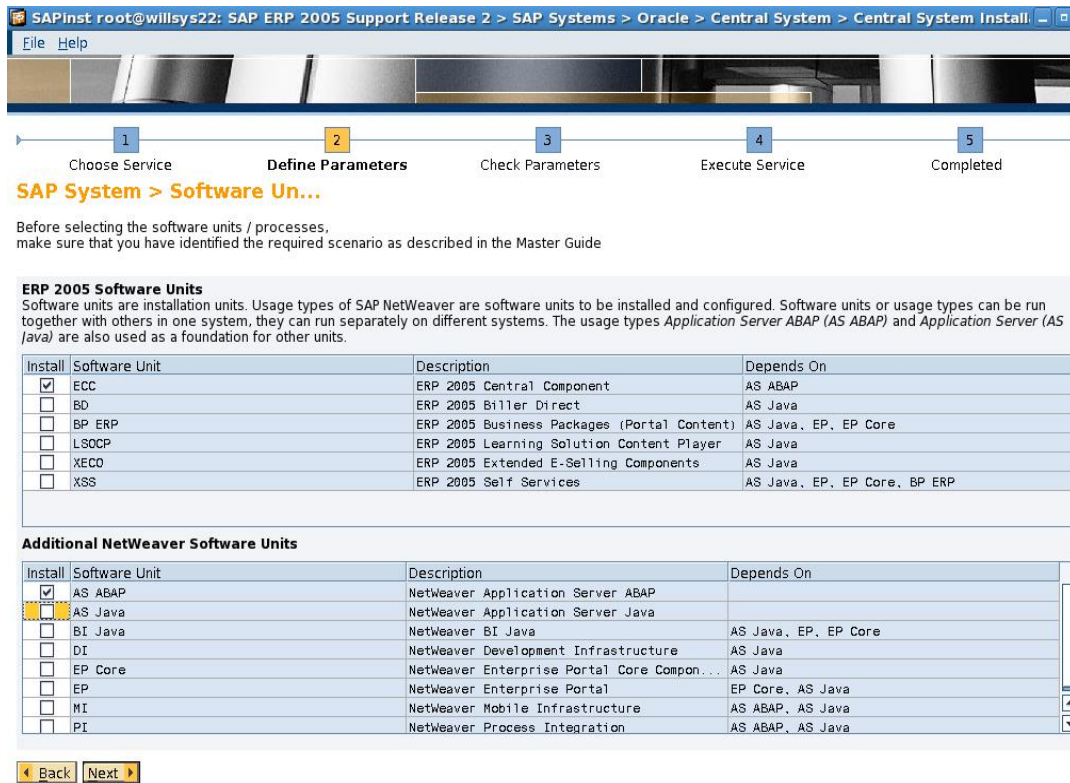
**Step 20:**

- Select 'Typical' and click on 'NEXT' 



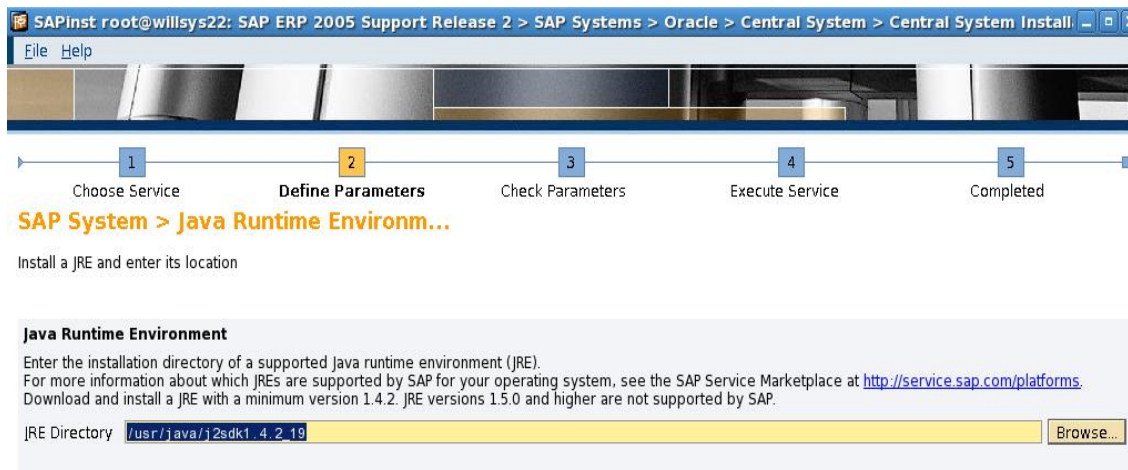
**Step 21:**

- Unselect software unit JAVA Click on 'NEXT'.



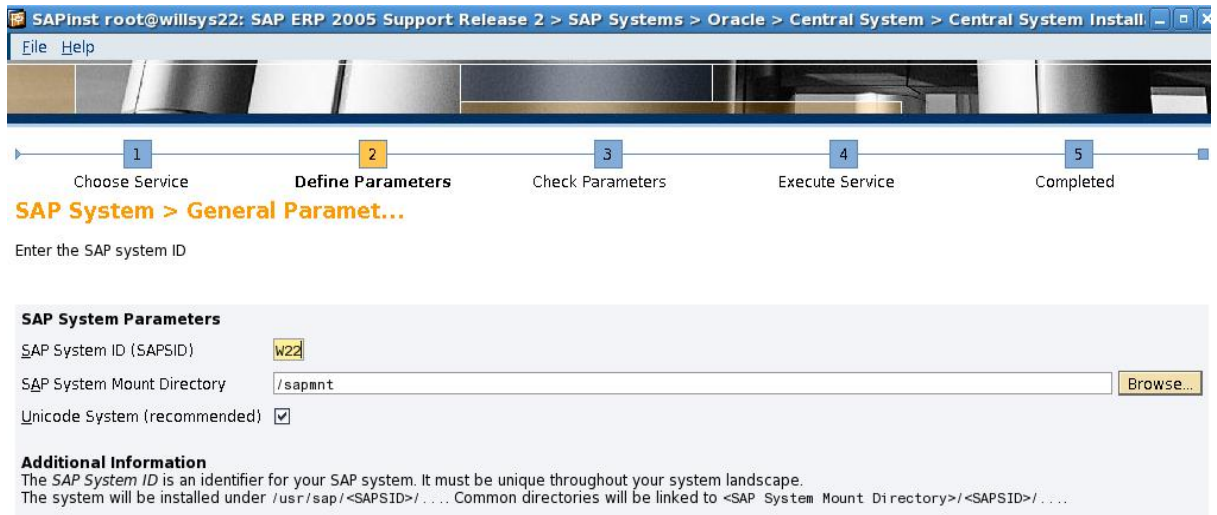
**Step 22:**

- Give JRE Directory path i.e /usr/java/j2sdk1.4.2\_19 and Click on ‘NEXT’ 



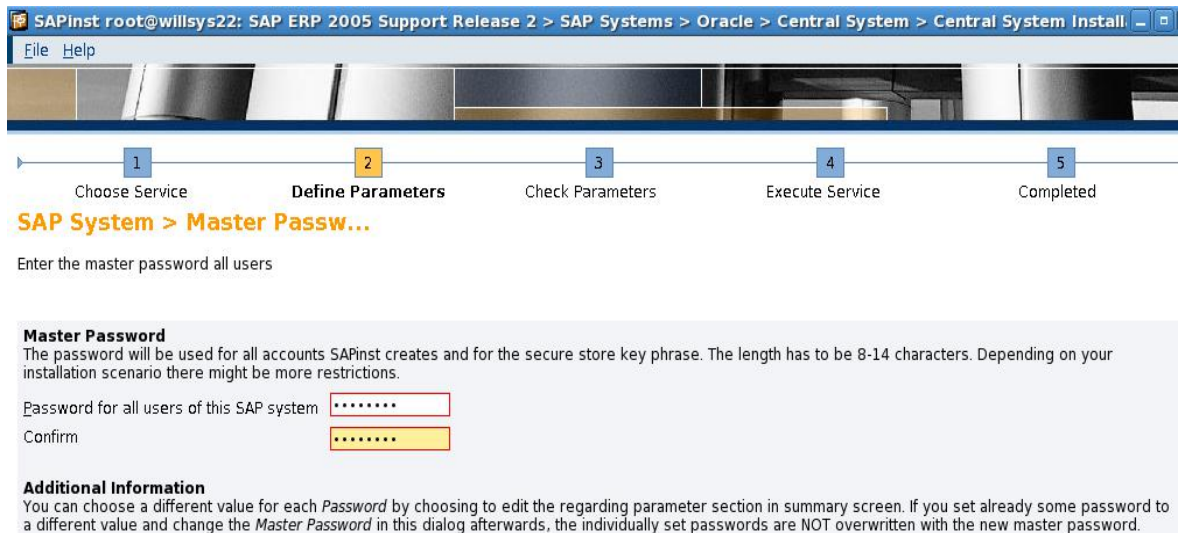
**Step 23:**

- Provide SAP system SID and System Mount Directory (/sapmnt) & Click on 'NEXT' .



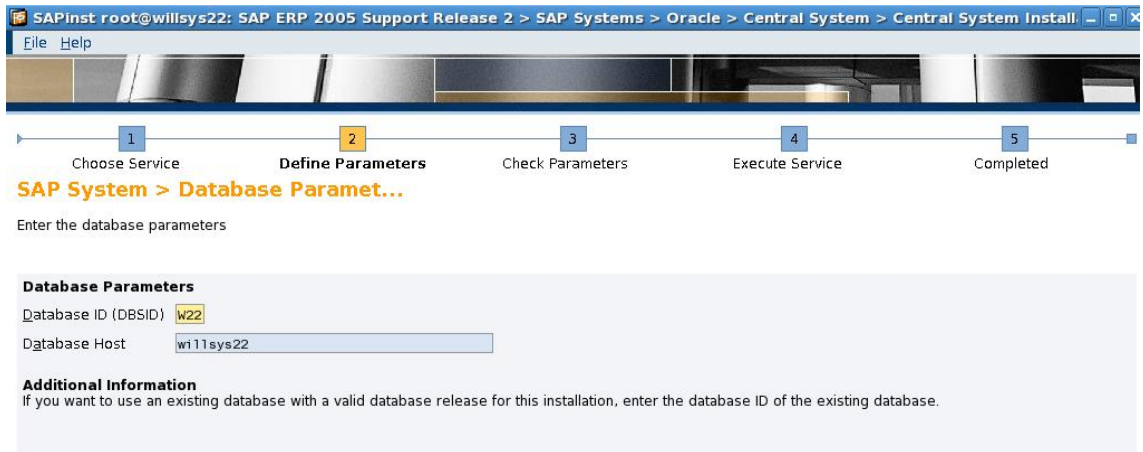
**Step 24:**

- Give PASSWORD for all users of the SAP system and Click on 'NEXT' .



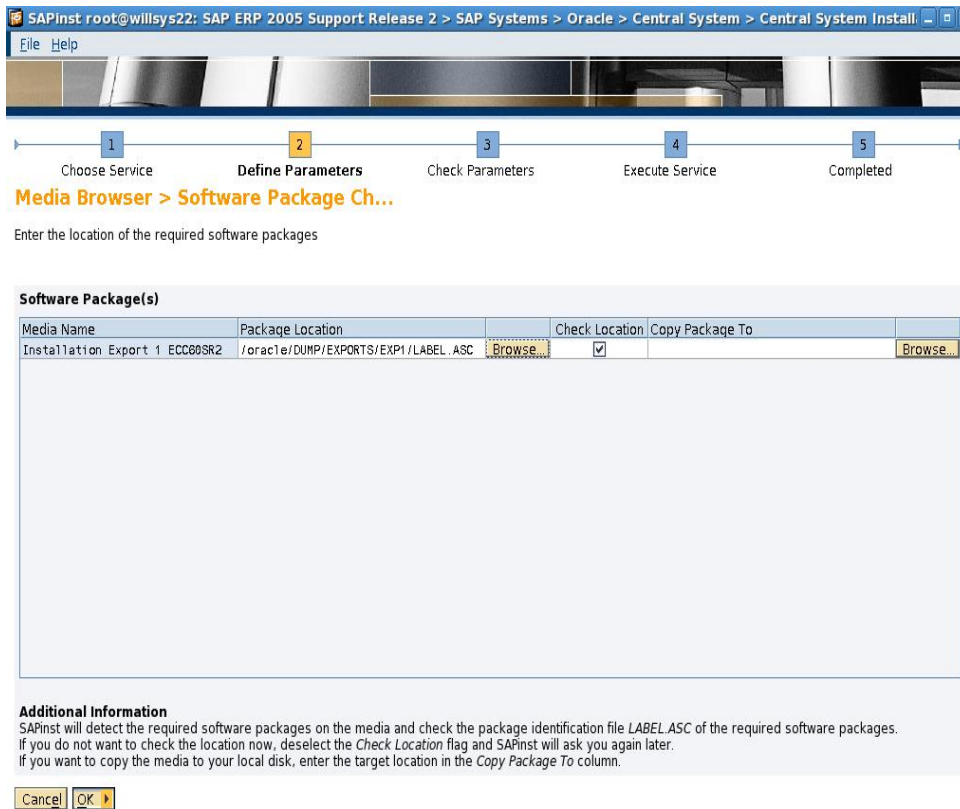
**Step 25:**

- Provide Database ID (DBSID), Database Host and Click on 'NEXT' 



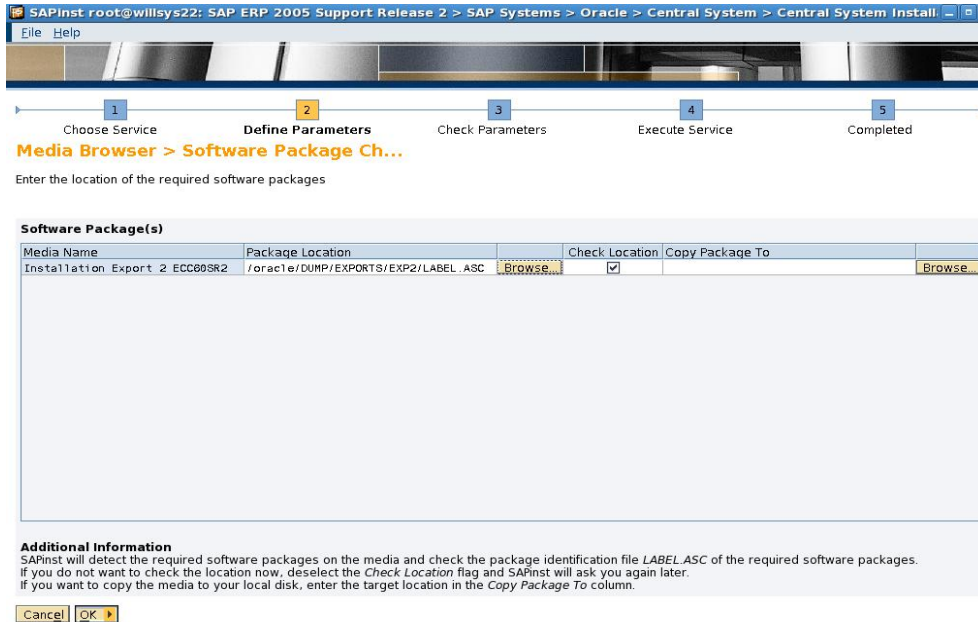
**Step 26:**

- Give installation Export1 path i.e /oracle/DUMP/EXPORTS/EXP1/LABEL.ASC and click on 'OK'.



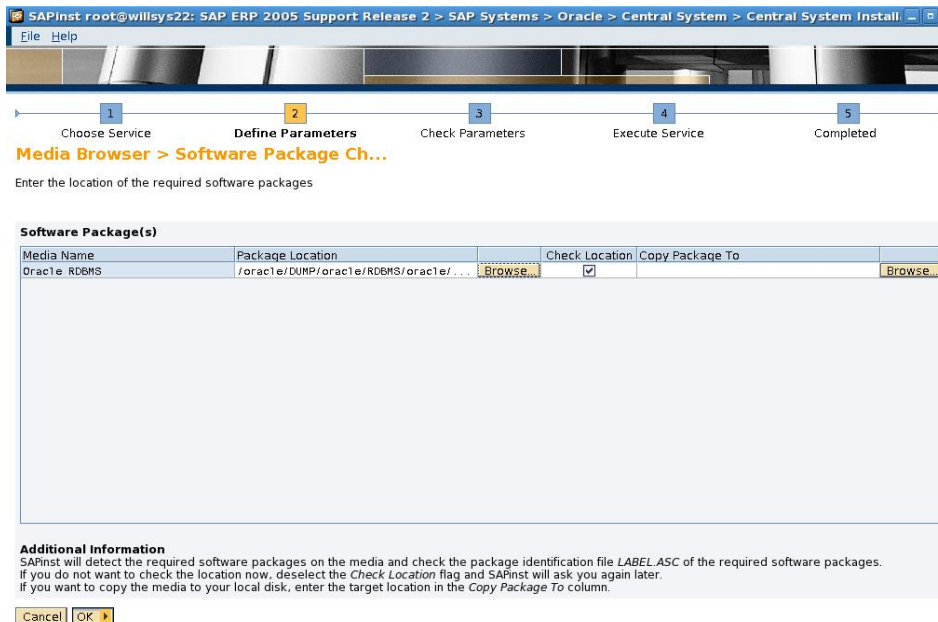
**Step 27:**

- Give installation Export2 path i.e /oracle/DUMP/EXPORTS/EXP2/LABEL.ASC and click on 'OK'.



**Step 28:**

- Give Oracle DBMS path i.e /oracle/DUMP/oracle/RDBMS/oracle/LABEL.ASC and click on 'OK'.



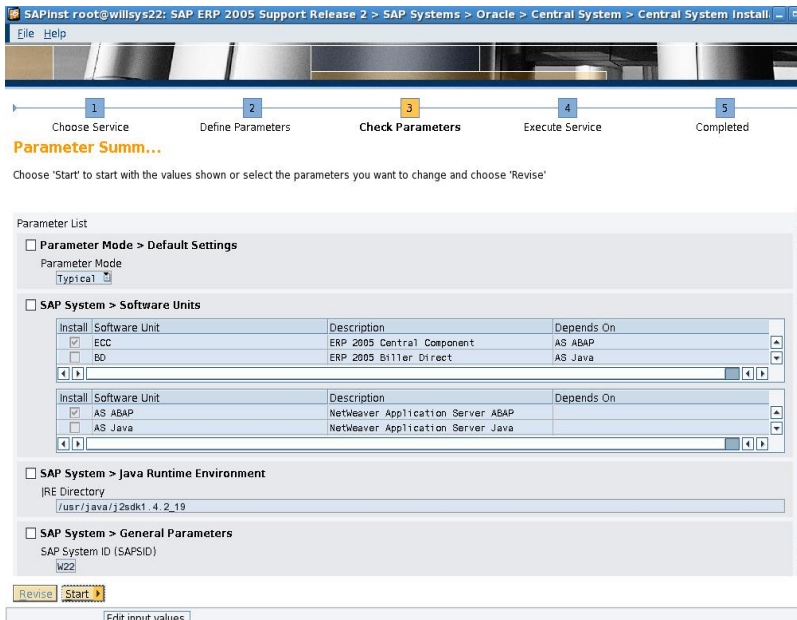
**Step 29:**

- Give UC Kernel path ASC and Oracle client path & click on 'OK'.



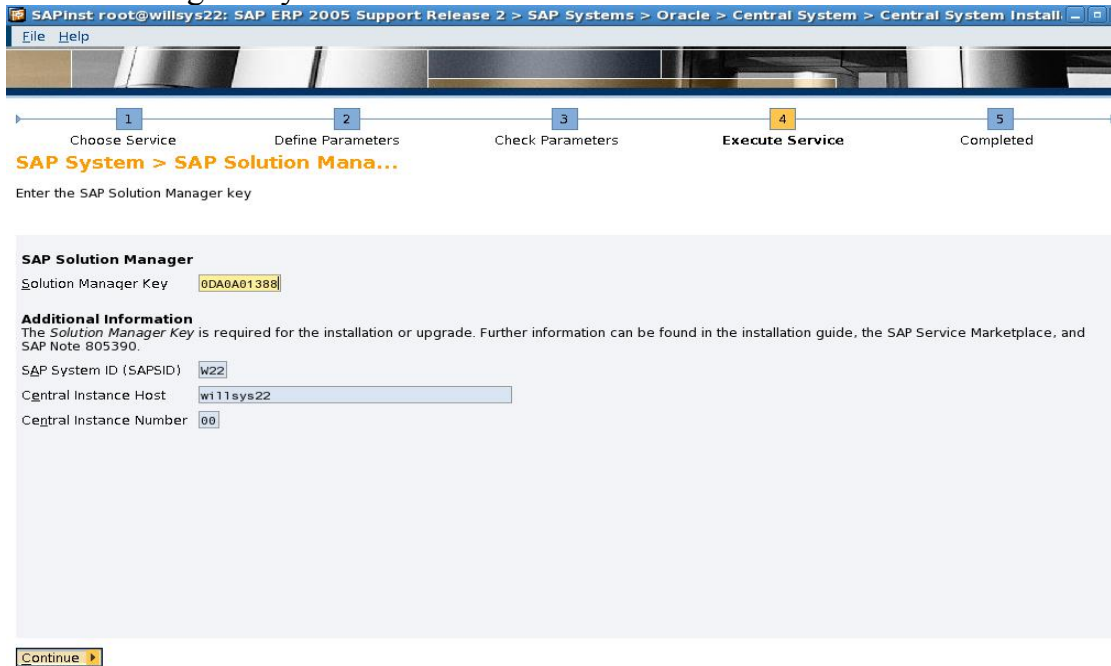
**Step 30:**

- Click on 'START'.



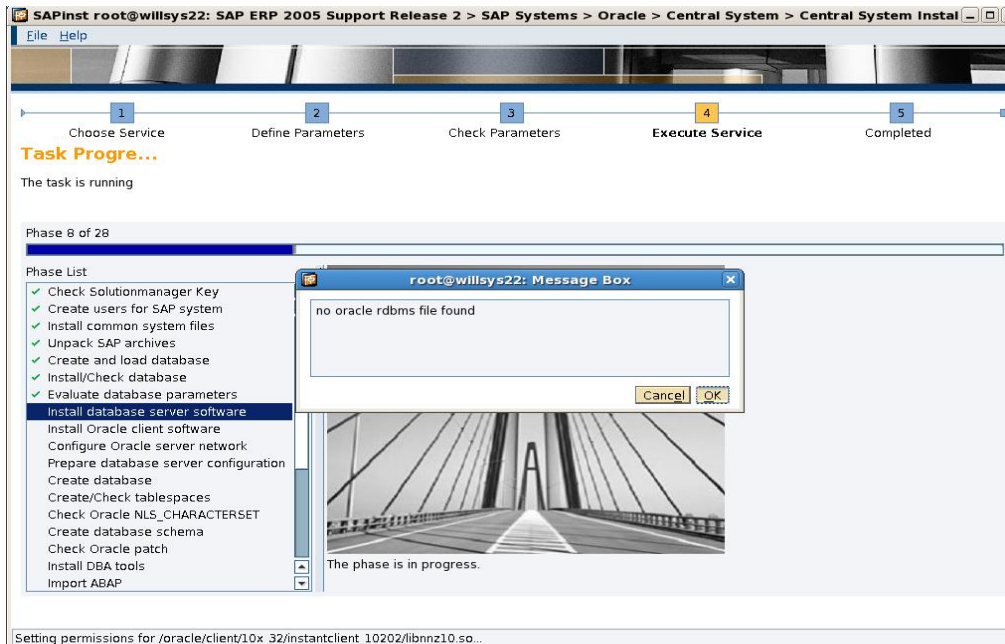
**Step 31:**

- Give Solution Manager Key and Click on ‘Continue’.



**Step 32:**

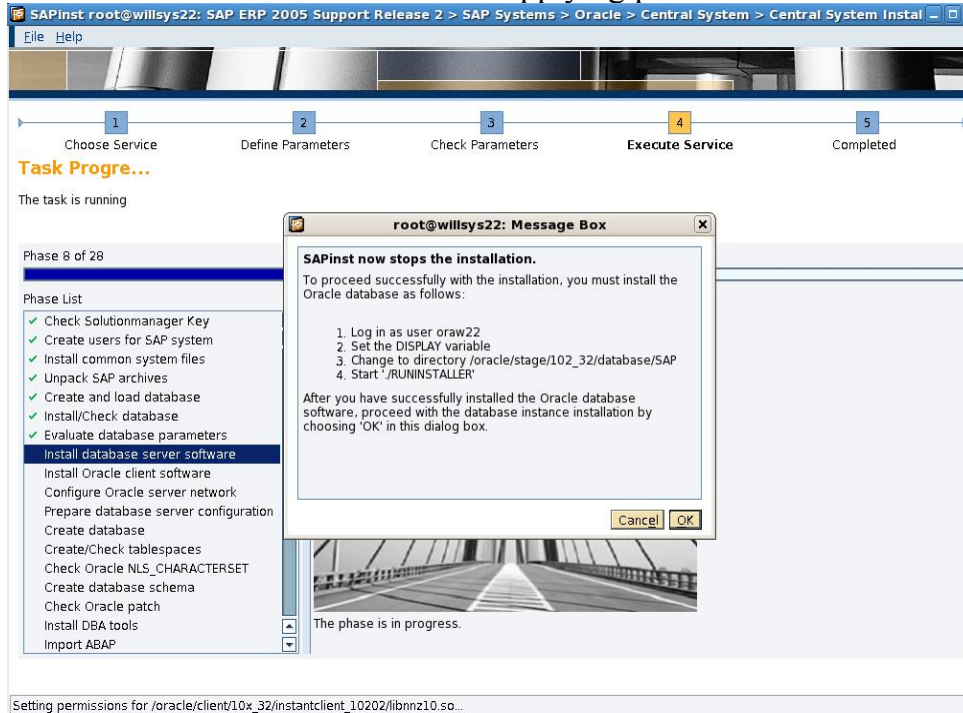
- Click on ‘OK’.



**Step 33:**



- After Successful Database Installation and applying patches click ‘OK’.



## DATABASE INSTALLATION:

### Step 34:

- Open a NEW TERMINAL and execute following commands.

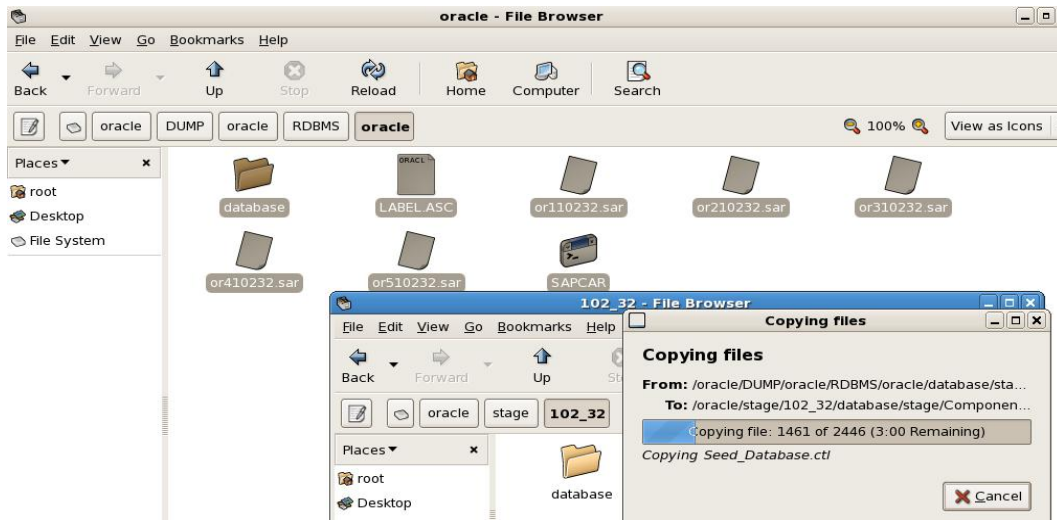


- Set the Environment Variables.

```
13> setenv ORACLE_HOME /oracle/W22/102_32
13> setenv ORACLE_SID W22
13> setenv LD_LIBRARY_PATH /oracle/W22/102_32/lib/./sapmnt/W22/exe
13> setenv UMASK 022
```

**Step 35:**

- Copy the database folder from DUMP to /oracle/stage/102\_32



**Step 36:**

- Installing Oracle 10g(10.2.0.1.0) software by executing ./RUNINSTALLER.



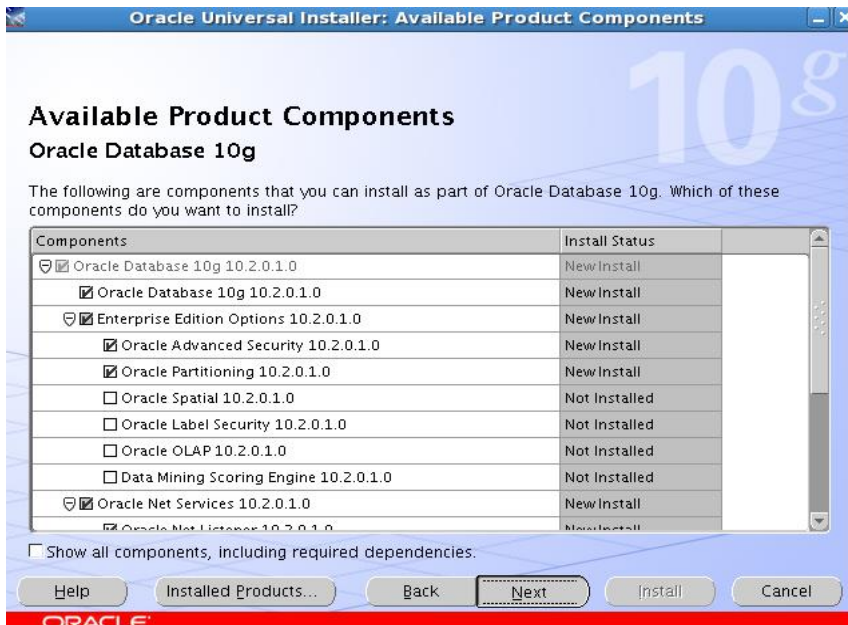
**Step 37:**

- Click on 'NEXT'.



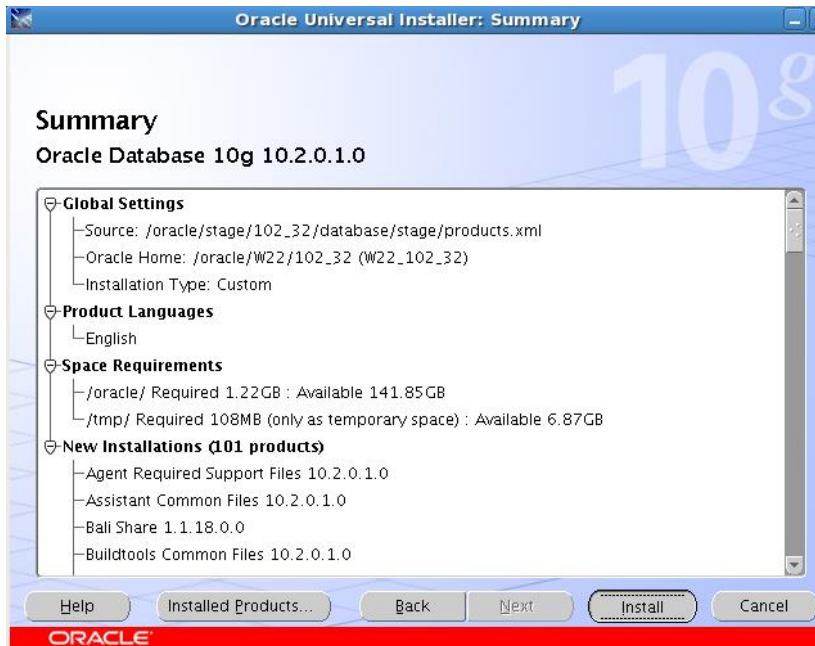
**Step 38:**

- Click on 'NEXT'.



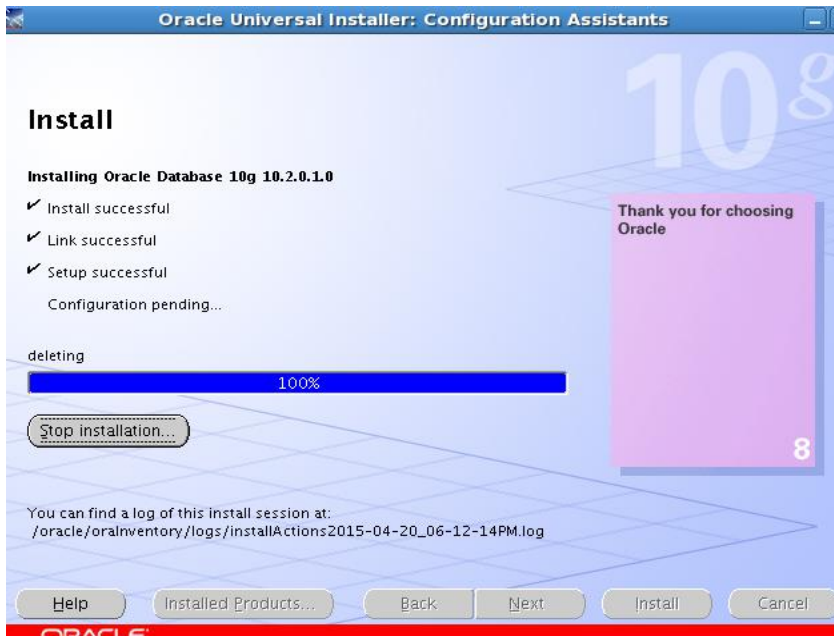
**Step 39:**

- Click on 'INSTALL'.



**Step 40:**

- Installing...



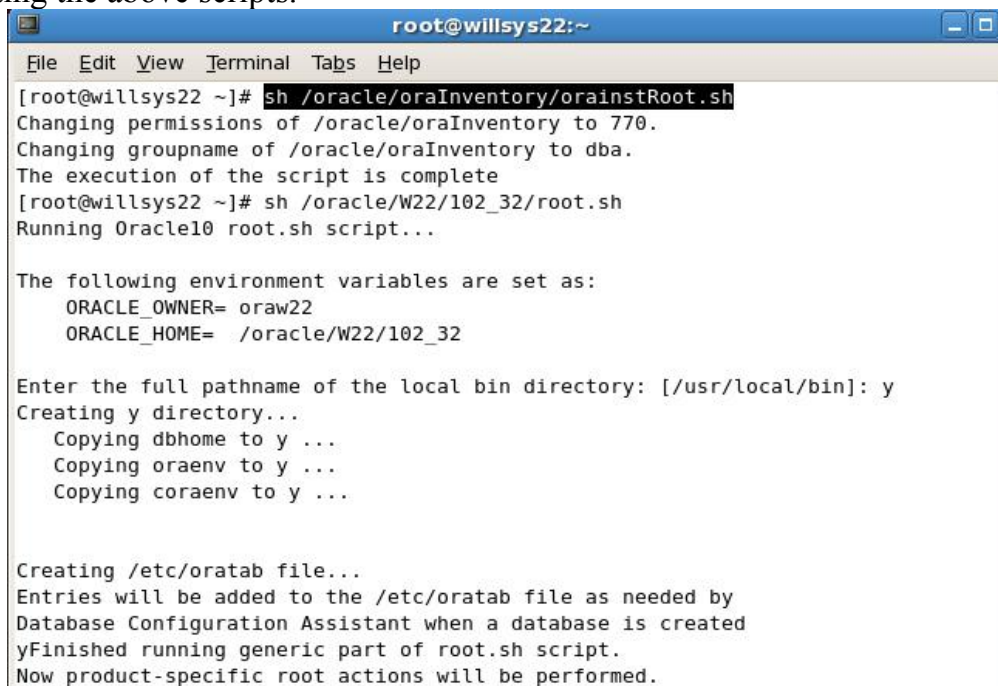
**Step 41:**

- Execute the below scripts in root user.



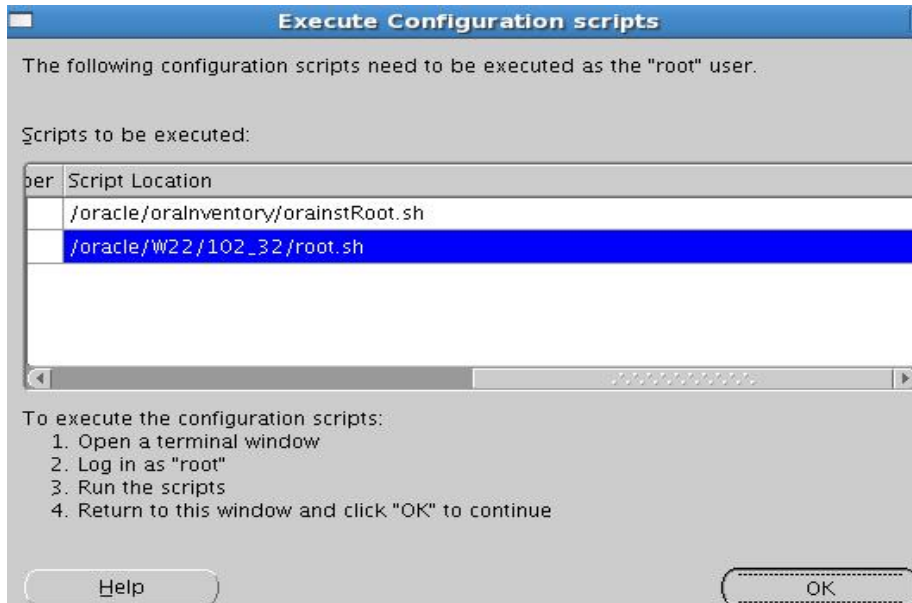
**Step 42:**

- Executing the above scripts.



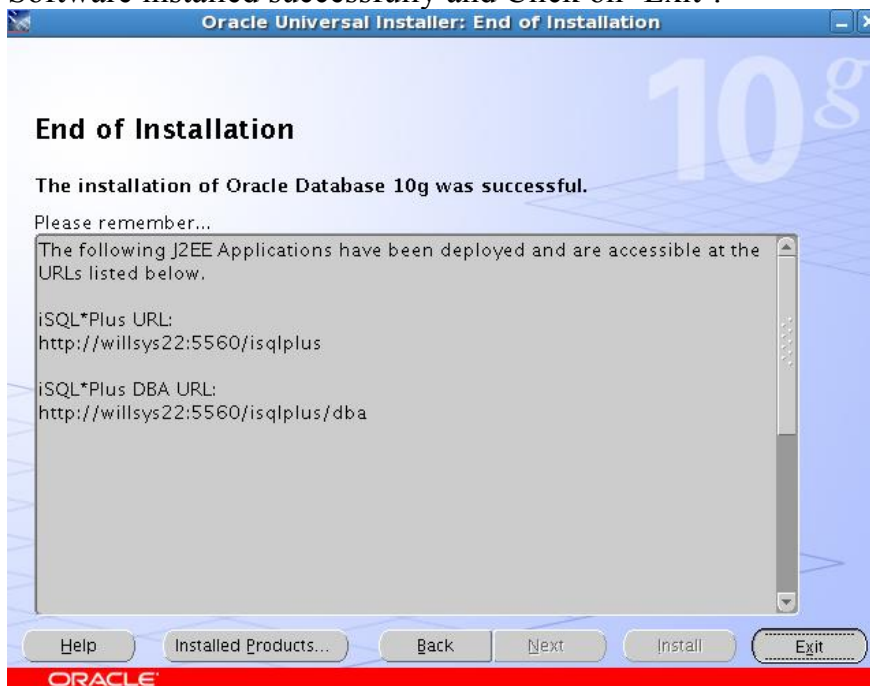
**Step 43:**

- Now click on 'OK' button.



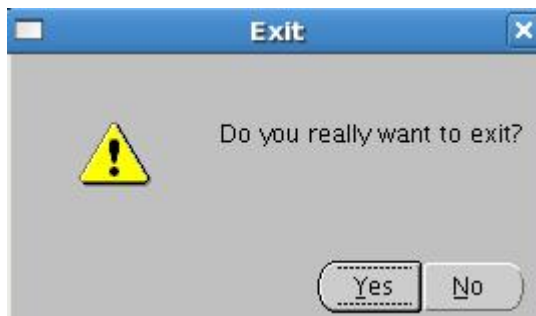
**Step 44:**

- Oracle Software installed successfully and Click on 'Exit'.



**Step 45:**

- Click on 'YES'.



## **DATABASE PATCH:**

### **Step 46:**

- Applying the Oracle Patch(10.2.0.2.0) by executing `./runInstaller`.

```
root@willsys22:/oracle/DUMP/IM_LINUX_I386
File Edit View Terminal Tabs Help
[root@willsys22 IM_LINUX_I386]# su - oraw22
willsys22:oraw22 6> cd /oracle/DUMP/oracle/ORA_PATCH_LIN32/DVD_ORACLE_10.2.0.2_Patches_LINUX/LINUX32/Disk1/
willsys22:oraw22 7> ls
10202_buglist.htm install patchnote.htm response runInstaller stage
willsys22:oraw22 8> ./runInstaller
Starting Oracle Universal Installer...

Checking installer requirements...

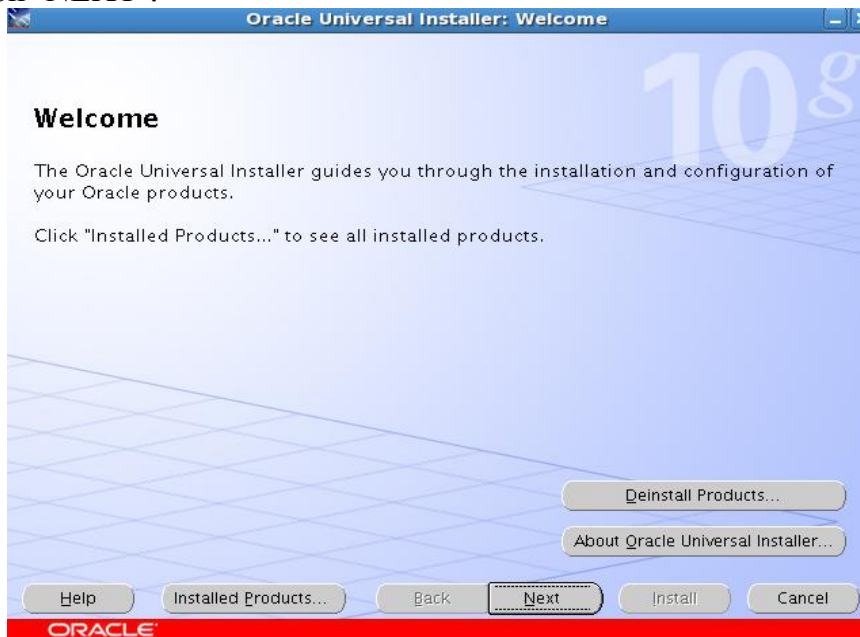
Checking operating system version: must be redhat-3, SuSE-9, redhat-4, UnitedLinux-1.0, asianux-1 or asianux-2
Passed

All installer requirements met.

Preparing to launch Oracle Universal Installer from /tmp/OraInstall2015-04-20_06-21-41PM. Please wait ...[]
```

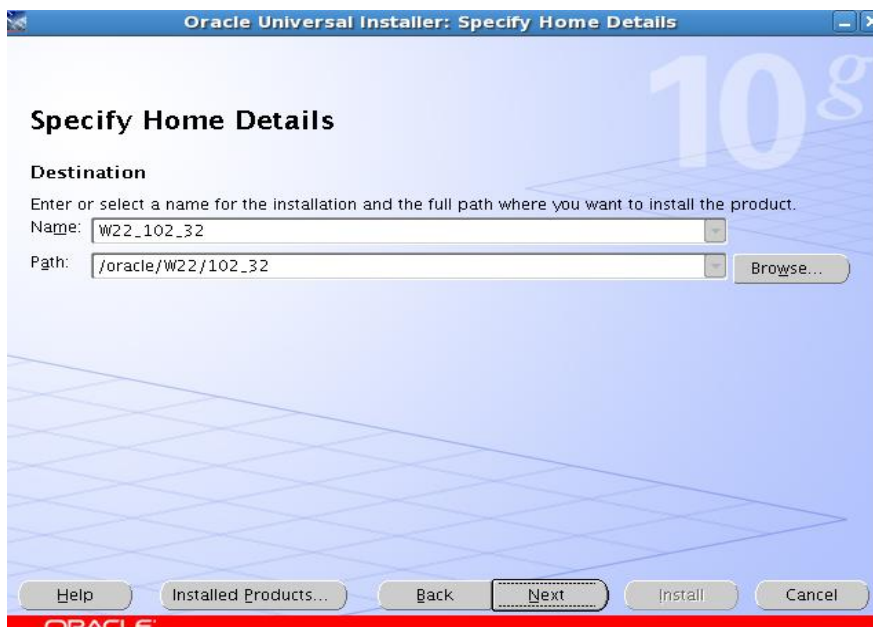
### **Step 47:**

- Click on 'NEXT'.



**Step 48:**

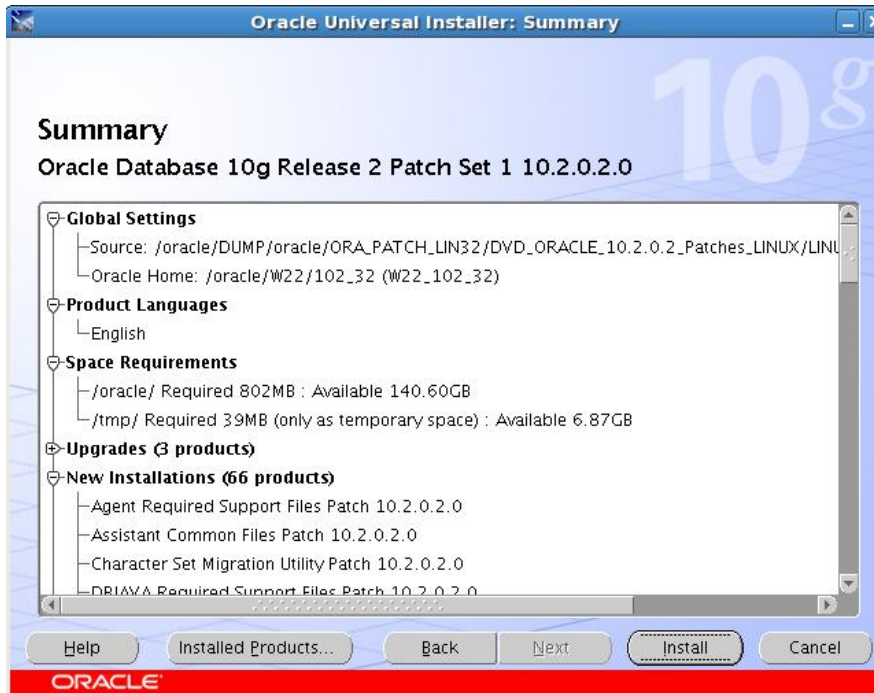
- Click on 'NEXT'.



**Step 49:**

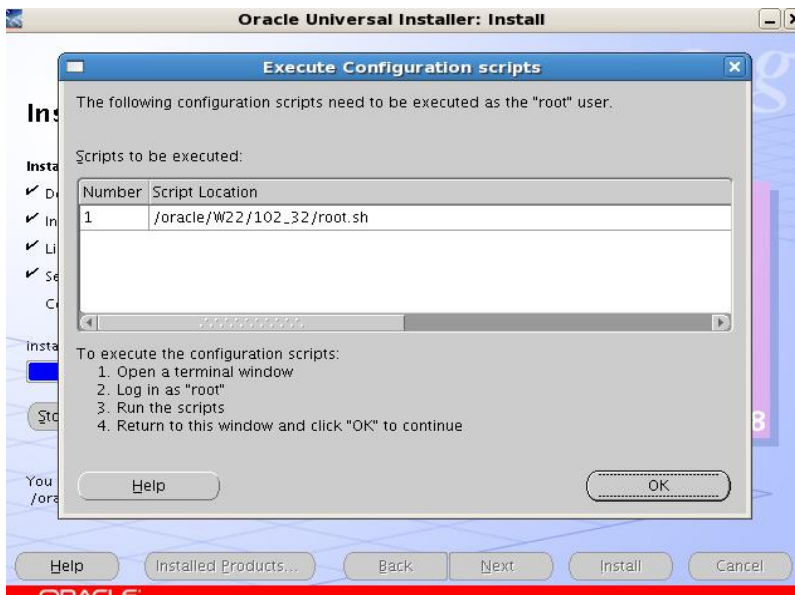


- Click on 'INSTALL'.



**Step 50:**

- Run the below script in root user.



**Step 51:**

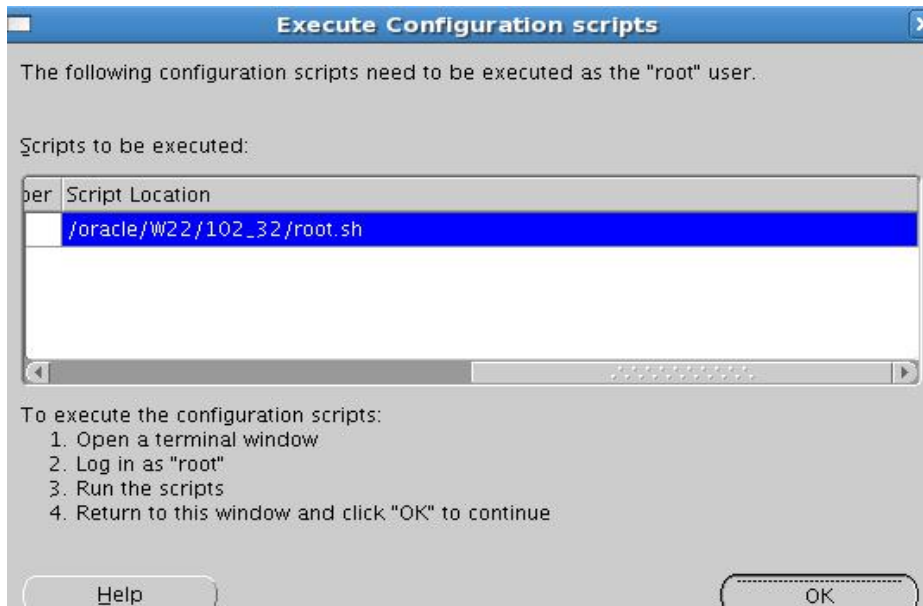
- Executing the above script.



```
root@willsys22:~  
File Edit View Terminal Tabs Help  
[root@willsys22 ~]# sh /oracle/W22/102_32/root.sh  
Running Oracle10 root.sh script...  
  
The following environment variables are set as:  
ORACLE_OWNER= oraw22  
ORACLE_HOME= /oracle/W22/102_32  
  
Enter the full pathname of the local bin directory: [/usr/local/bin]: y  
The file "dbhome" already exists in y. Overwrite it? (y/n)  
[n]: y  
Copying dbhome to y ...  
The file "oraenv" already exists in y. Overwrite it? (y/n)  
[n]: y  
Copying oraenv to y ...  
The file "coraenv" already exists in y. Overwrite it? (y/n)  
[n]: y  
Copying coraenv to y ...  
  
Entries will be added to the /etc/oratab file as needed by  
Database Configuration Assistant when a database is created  
Finished running generic part of root.sh script.  
Now product-specific root actions will be performed.  
[root@willsys22 ~]#
```

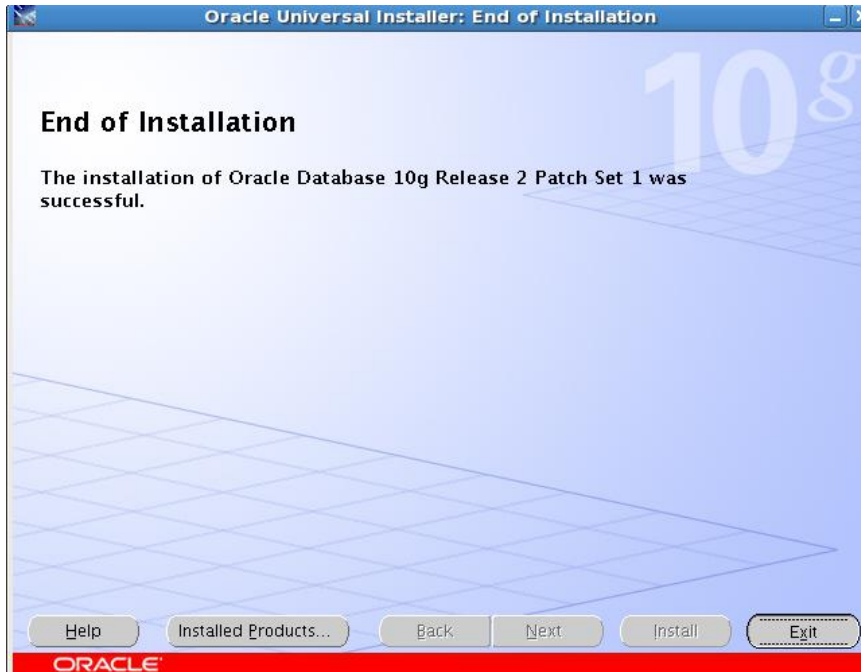
**Step 52:**

- Click on 'OK'.



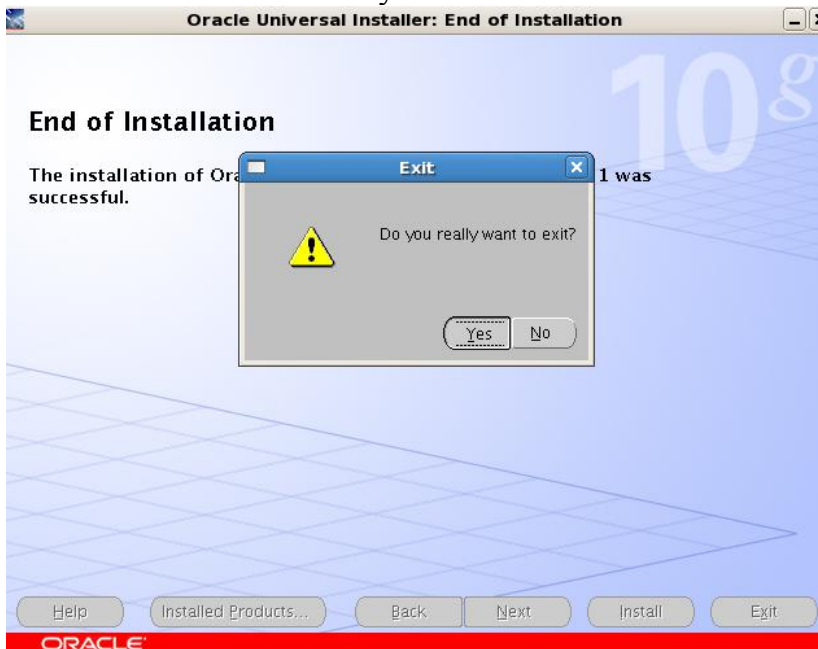
**Step 53:**

- Click on 'EXIT' button.



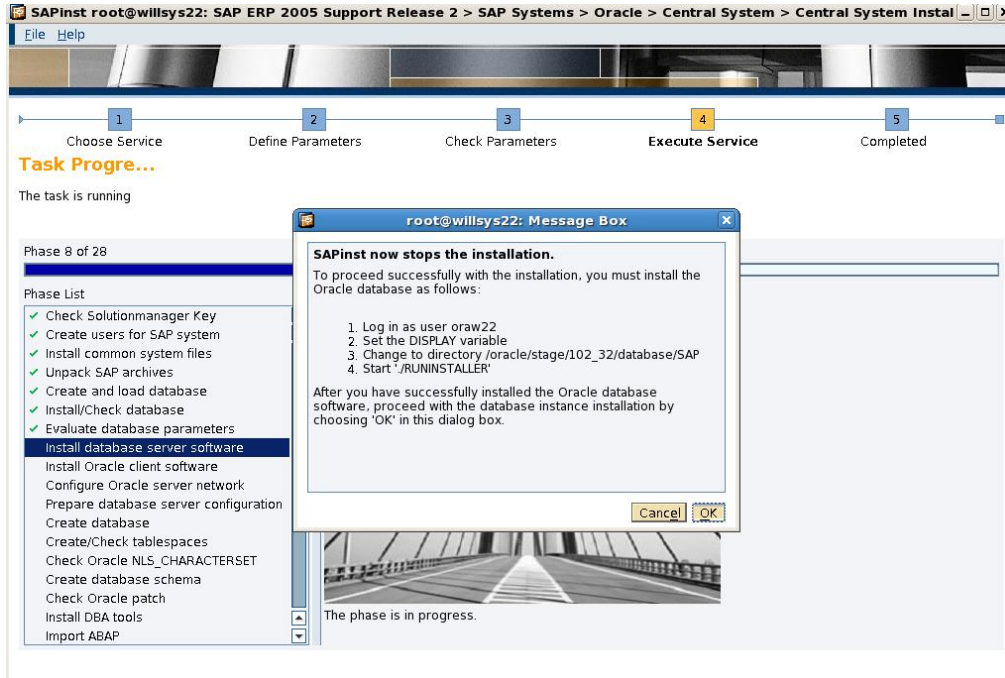
**Step 54:**

- Oracle Patch Installed Successfully and click on 'YES' button.



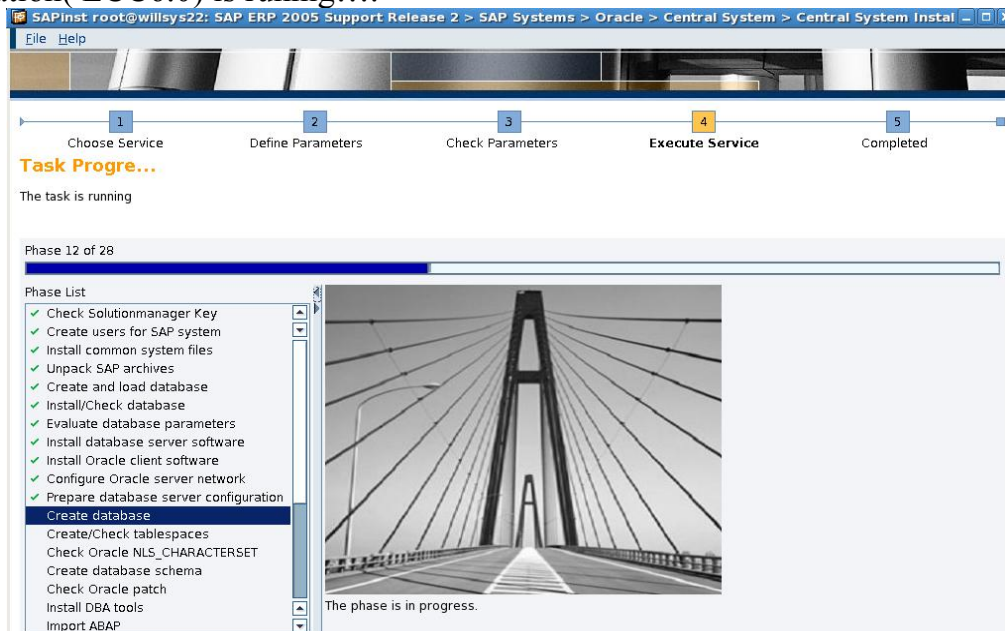
**Step 55:**

- After successful Database Installation, Click on ‘OK’ button to continue the SAP Installation.



**Step 56:**

- Installation( ECC6.0) is running....



**Step 57:**

- Installation takes time to complete. After Completion of Installation of ECC6.0 click on 'OK'.

### Related Content:

[www.help.sap.com](http://www.help.sap.com)

[www.sdn.sap.com/irj/sdn/index](http://www.sdn.sap.com/irj/sdn/index).

### Disclaimer and Liability Notice:

WILLSYS will not be held liable for any damages caused by using or misusing the information, code or methods suggested in this document, and anyone using these methods does so at his/her own risk.

WILLSYS offers no guarantees and assumes no responsibility or liability of any type with respect to the content of this technical article or code sample, including any liability resulting from incompatibility between the content within this document and the materials and services offered by WILLSYS. You agree that you will not hold, or seek to hold, WILLSYS responsible or liable with respect to the content of this document.