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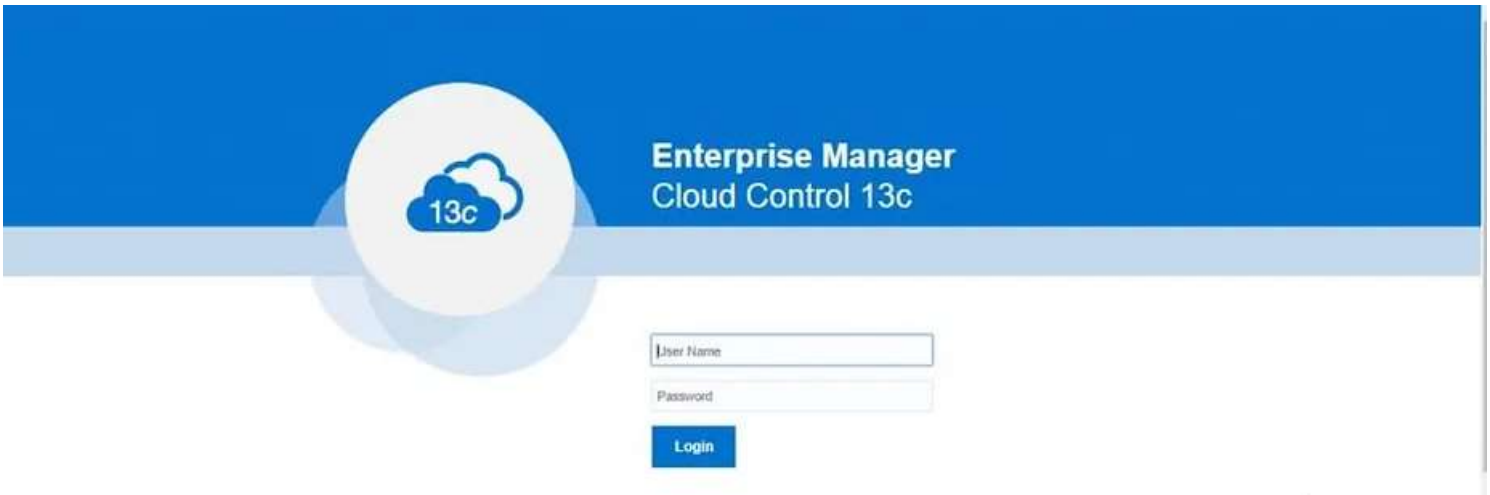
Oracle Enterprise Manager Cloud Control 13c (13.3) Installation on Oracle Linux 7

This article describes Oracle Enterprise Manager Cloud Control 13c release 3 installation on Oracle Linux 7. The process of installing OEM 13c is same on Oracle Linux 6!



Software Requirements

We will be setting up OEL 7 machine using Oracle VirtualBox and configure Oracle Enterprise Manager on top of it

- Oracle virtual box (latest version)
- Oracle Enterprise Linux 7.7
- Oracle Enterprise Manager Cloud Control 13cR3
- Oracle Database 12cR2

> ***Note:*** *OEM needs minimum 10GB RAM. Make sure you have enough RAM to allocate 10 GB to the virtual machine*

Install Oracle Linux 7

For this demonstration purpose, I have used virtualbox VM with 10 GB RAM and 120 GB hard disk. I have setup the virtual machine with exact same steps described in the following article

Install Oracle Linux on VirtualBox (OEL 7.7)

Install Oracle 12cR2

Note that OEM 13cR3 supports 12cR1, 12cR2 and 18c version as the repository database. I am proceeding with 12cR2 database.

We will be using YUM repository to perform all prerequisites for us. Make sure your VM is able to ping google.com before issuing below command

```
yum -y install oracle-database-server-12cR2-preinstall
```

Install below packages as they are required by OEM

```
yum install make -y
yum install binutils -y
yum install gcc -y
yum install libaio -y
yum install glibc-common -y
yum install libstdc++ -y
```

```
yum install sysstat -y
yum install glibc -y
yum install glibc-devel.i686 -y
yum install glibc-devel -y
yum install libXtst -y
```

Set password for Oracle user

```
passwd oracle
```

Create directories which will hold Oracle software installation

```
mkdir /u01
chown -R oracle:oinstall /u01
chmod -R 775 /u01
```

Copy the 12cR2 software files under /u01 and unzip it

```
su - oracle

cd /u01
unzip linuxx64_12201_database.zip
```

You can choose to install the Oracle software using GUI method but I will be going with silent mode as it is quick and straight forward.

Create response file under /tmp location with below details

```
vi /tmp/12cR2_response.rsp
```

Put below contents and make sure to change the hostname as per your machine

```
oracle.install.responseFileVersion=/oracle/install/rspfmt_dbinstall_res
ponse_schema_v12.2.0
oracle.install.option=INSTALL_DB_SWONLY
ORACLE_HOSTNAME=test.dbagenesis.com
UNIX_GROUP_NAME=oinstall
INVENTORY_LOCATION=/u01/app/oraInventory
SELECTED_LANGUAGES=en
ORACLE_HOME=/u01/app/oracle/product/12.2.0.1
ORACLE_BASE=/u01/app/oracle
oracle.install.db.InstallEdition=EE
oracle.install.db.OSDBA_GROUP=dba
oracle.install.db.OSOPER_GROUP=dba
```

```
oracle.install.db.OSBACKUPDBA_GROUP=dba
oracle.install.db.OSDGDBA_GROUP=dba
oracle.install.db.OSKMDBA_GROUP=dba
oracle.install.db.OSRACDBA_GROUP=dba
SECURITY_UPDATES_VIA_MYORACLESUPPORT=false
DECLINE_SECURITY_UPDATES=true
oracle.installer.autoupdates.option=SKIP_UPDATES
```

Run the installer in silent mode to start the Oracle software installation

```
cd /u01/database

./runInstaller -ignoreSysPrereqs -showProgress -silent -responseFile
/tmp/12cR2_response.rsp
```

Set .bash_profile and add below parameters

```
vi .bash_profile
```

Delete all contents and put below. Make sure to change locations as per your setup

```
# .bash_profile

# Get the aliases and functions
if [ -f ~/.bashrc ]; then
     . ~/.bashrc
fi

# User specific environment and startup programs
export ORACLE_HOME=/u01/app/oracle/product/12.2.0.1
export ORACLE_SID=oemdb
export OMS_HOME=/u01/app/oracle/middleware
export AGENT_HOME=/u01/app/oracle/agent/agent_inst

PATH=$PATH:$HOME/.local/bin:$ORACLE_HOME/bin

export PATH
```

Export bash profile

```
. .bash_profile
```

Create Repository Database

Start the listener

```
lsnrctl start
```

We will be creating a repository database that will hold the OEM repository. You can choose to create a NON-CDB database or create PDB to hold repository. I am proceeding with NON-CDB database for our repository database.

```
dbca -silent -createDatabase \
-templateName General_Purpose.dbc \
-gdbName oemdb \
-sid oemdb \
-createAsContainerDatabase false \
-emConfiguration NONE \
-datafileDestination /u01/db_files \
-storageType FS \
-characterSet AL32UTF8 \
-totalMemory 2048 \
-recoveryAreaDestination /u01/FRA
```

Connect to the database and issue below commands

```
alter system set "_allow_insert_with_update_check"=true scope=both;
alter system set session_cached_cursors=200 scope=spfile;
alter system set sga_target=800M scope=both;
alter system set pga_aggregate_target=450M scope=both;
```

Its good to bounce the database

```
SQL> Shut immediate;
SQL> startup;
```

Our repository database is ready!

Install OEM 13c

Let us start with OEM 13cR3 installation. First we need to create OMS and agent directory

```
mkdir -p /u01/app/oracle/middleware
mkdir -p /u01/app/oracle/agent
```

Copy the oem 13c installation files. In my setup, I have copied it under /u01. Start the installer by running the "em13300_linux64.bin" file

```
cd /u01
./em13300_linux64.bin
```

Uncheck the security update checkbox and click on Next

Skip the software update

All the prerequisites checks must pass. I got a couple of errors and I just ignored it for now as its OEM installation on VM

We will proceed with a simple enterprise manager configuration

Give the locations of Middleware home and agent home

Give admin password that you will use to login to OEM along with repository database details

Click on Yes to allow installer fix errors

Click on Ok for any warnings. Make sure you fix these in real time installation

Go with the default software library location. I unchecked the **Configure a shared location for BI publisher** and checked **Enable BI Publisher**

Review the installation summary and hit on **Install**

The installation should start and it will take 3 to 5 hours depending upon your system / VM speed

Run the root scripts and then click on **OK**

The installation is finished and please note the important information on the final screen which has details about OEM URL

Login to OEM

You can login to OEM console via web browser. In my case, I will be navigating to URL **https://test.dbagenesis.com:7803/em**

> ***Note**: You can even use ip address of virtual machine instead of domain name under URL. Like https://192.168.0.171:7803/em*

It might throw an ssl certificate error. Click on Advance >> visit website

Login with **sysman** user and use the password you gave during installation

Stopping OEM Cloud Control

Use below commands to stop OMS, Agent, listener and the database

```
Stop all
========

$OMS_HOME/bin/emctl stop oms -all

$AGENT_HOME/bin/emctl stop agent

lsnrctl stop

sqlplus / as sysdba

SQL> shut immediate;
```

Starting OEM Cloud Control

Use below commands to start listener, database, OMS and Agent

```
lsnrctl start

sqlplus / as sysdba

SQL> startup;

$OMS_HOME/bin/emctl start oms

$AGENT_HOME/bin/emctl start agent
```

Disable BI Publisher

It's a good idea to configure BI publisher as part of OEM 13c installation so that its available when you need it in future.

If you are not going to use BI publisher immediately, you can disable it. This will speed up the OEM startup. You can enable BI publisher anytime in future

```
-- check BI publisher status
$OMS_HOME/bin/emctl status oms

-- disable BI publisher
$OMS_HOME/bin/emctl config oms -disable_bip

-- enable BI publisher
$OMS_HOME/bin/emctl config oms -enable_bip
```

Done 😉