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Add Linux Target to Oracle Enterprise Manager Cloud Control 13c

This article list out steps to add Linux (OEL 7) as a monitoring target to Oracle Enterprise Manager Cloud Control 13c. Note, the steps are same for 12c OEM as well.This method of agent deployment is also known as **Push Method Deployment**.

- Install Oracle Linux 7
- Install Oracle 12cR2
- Create Database
- Create Listener
- Add Linux Target via OEM
- Monitor Database, Listener
- Removing a Target

> ***Also Read:*** *Setup and install Oracle Enterprise Manager 13c Cloud Control on Linux.*

Install Oracle Linux 7

For this demonstration purpose, I have used virtualbox VM with 4 GB RAM and 120 GB hard disk. I have setup the virtual machine with exact same steps described in the following article.

I have set hostname as “dev.dbagenesis.com” for this linux target while installing OEL 7.

Install Oracle Linux on VirtualBox (OEL 7.7)

Install Oracle 12cR2

Add OEM server details to /etc/hosts file and below is how target server /etc/hosts file looks like

```
192.168.1.171          oem.dbagenesis.com            oem
192.168.1.172          dev.dbagenesis.com            dev
```

As this VM is going to act as OEM target, I am going to install Oracle 12cR2 and also create a database. This will allow us to monitor this new database from OEM console.

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

Install below packages as they are required by OEM to install Agent on this target machine

```
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 and agent software installation

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

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 straightforward.

```
vi /tmp/12cR2_response.rsp

oracle.install.responseFileVersion=/oracle/install/rspfmt_dbinstall_res
ponse_schema_v12.2.0
oracle.install.option=INSTALL_DB_SWONLY
ORACLE_HOSTNAME=dev.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

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

Set the Oracle user bash profile

```
# .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=devdb
export AGENT_HOME=/u01/app/oracle/agent/agent_inst

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

```
export PATH
```

Don't forget to execute the bash profile

```
. .bash_profile
```

Create Database

Let's create **devdb** database on this VM. I am using dbca silent mode for quick db creation

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

Create Listener

Fire NETMGR utility and create database listener and tns entries.

Add Linux Target via OEM

Before we can add the Linux target, we must add the target details to /etc/hosts file on OEM server

```
192.168.1.171          oem.dbagenesis.com            oem
192.168.1.172          dev.dbagenesis.com            dev
```

Login to OEM console via web browser and let us start adding the target

On top right side, click on Setup >> Add Target >> Add Target Manually

Under Add Host Targets >> click on Install Agent on Host

Click on **+ Add** option, give hostname and select platform. Click on **Next**

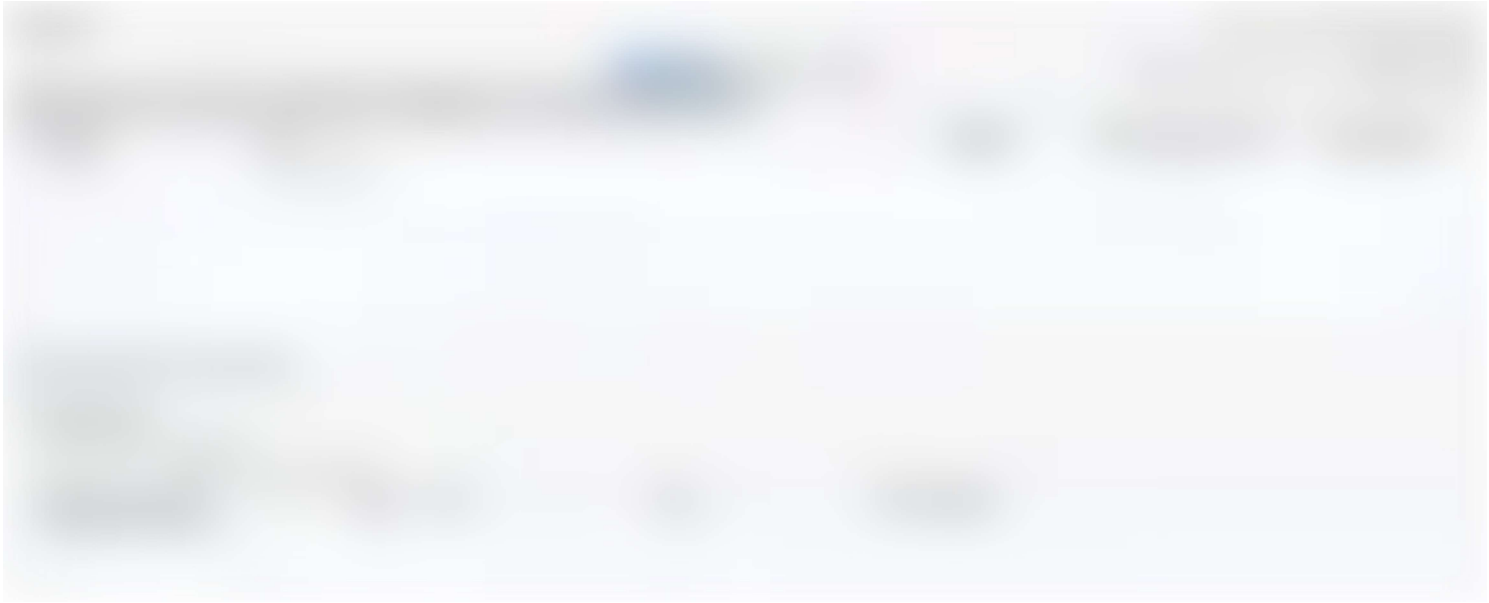
Provide the agent installation directory **/u01/app/oracle/agent**. Click on **Named Credential** and give the oracle user id and password of the target system. Click on **Root Credential** and give root user id and password of the target system.

Make sure to delete anything that you see under **Privileged Delegation Setting**

> ***Note:*** *Named credential is the Oracle user ID & password of the target server with which OEM will be able to install agent software.*

> *Root credential is the root user id & password of the target server with witch OEM will be able to execute root scripts.*

Click Next, review the agent installation, and then click on Deploy Agent



Once the installation is done, you can click on **Targets** >> **Hosts** to check the newly added host

Monitor Database, Listener

Once the agent software is installed, it will not automatically start monitoring the database, listener, asm etc. You need to set it up to do it for you.

Navigate to Setup >> Add Target >> Add Targets Manually. Click on **Add target using guided process**

Select the below option and click on Add

Under specify host, click on **Search Icon** and select the target host where DB & listener resides. Then click on Next

OEM will discover the database on target system and list it. Select the database, give DBSNMP password (default is Oracle). Then click on test connection. If connection is successful, click ok then click on Next

Check the review screen and click on Save

Done, now your Database and listeners are also added to monitoring. You can check the by going to Targets >> Databases.

Removing a Target

To remove a target and all its monitoring from OEM, first bring down the target agent software. We can do this via OEM, under **Targets >> All Targets** search for the agent >> right click >> control >> shut down

OEM will prompt you to provide credentials to login to target server so that it can shutdown the agent. We must provide the **Named credentials of the Dev server** and then click on Shutdown

Wait until the agent software is shutdown. Once again Right Click agent >> Target Setup >> Agent Decommission

Click on continue to start removing the agent from the target server

OEM will list out all the targets (host, database, listener) that are being monitored by it and once you de-commission the agent, OEM will stop monitoring those targets. Click on Continue

Done, the agent and all target monitoring are removed from the OEM.

Next, you will have to manually delete the agent software from the target server

```
On target system as oracle user
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cd /u01/app/oracle/agent
rm -rf *
```