

Installing Oracle Enterprise Manager 13c Release 3 in Oracle Cloud Infrastructure

1. Purpose

This user guide describes the steps to deploy Oracle Enterprise Manager 13.3 in Oracle Cloud Infrastructure using Marketplace Application

2. Time to Complete

The Oracle Enterprise Manager installation requires approximately one hour.

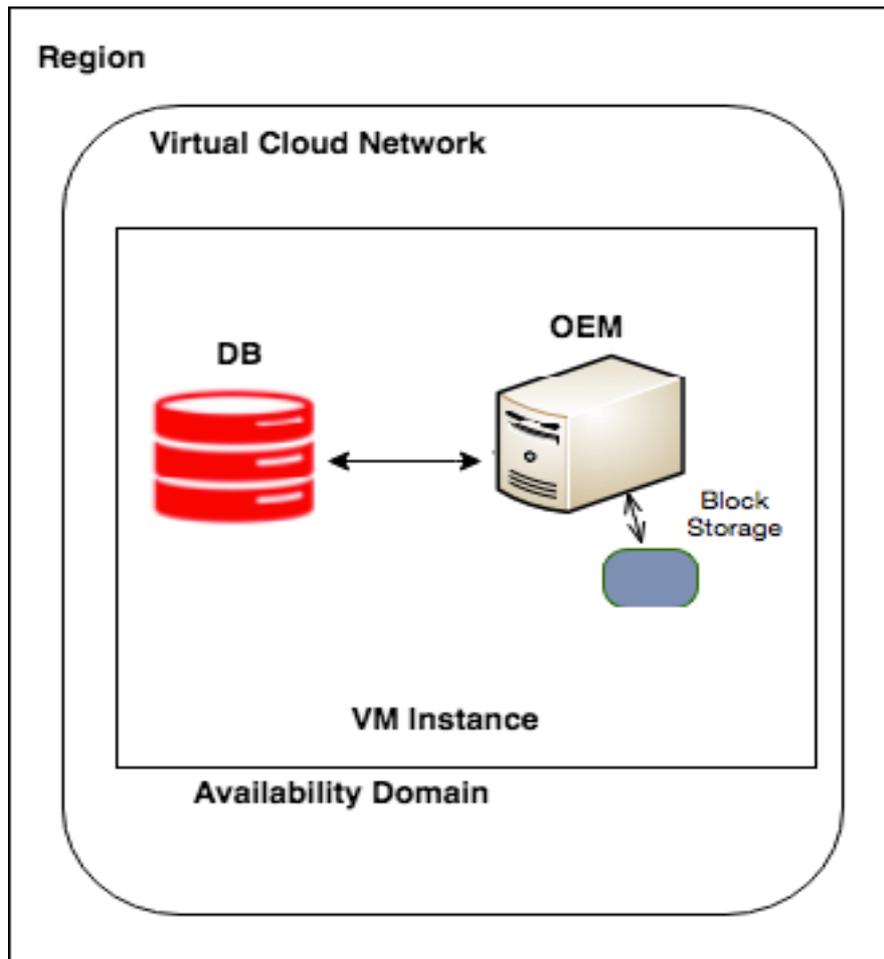
3. Overview of Oracle Enterprise Manager 13c

Oracle Enterprise Manager is a complete, integrated, and business-driven enterprise cloud management solution. Oracle Enterprise Manager has built-in management capabilities of the Oracle stack for traditional and cloud environments that enables you to monitor and manage the complete Oracle IT infrastructure from a single console. The key capabilities of Enterprise Manager are as follows:

- A complete cloud lifecycle management solution enabling you to quickly set up, manage, and support enterprise clouds and traditional Oracle IT environments from applications to disk
- Maximum return on IT management investment through the best solutions for intelligent management of the Oracle stack and engineered systems with real-time integration of Oracle's knowledge base with each customer environment
- Best service levels for traditional and cloud applications through business-driven application management.

4. Deployment Architecture of OEM

The Oracle Enterprise Manager 13.3 and DB 12.1.0.2 (latest CPU) repository will be deployed in a single OEL 7.6 VM instance. The data will be persisted in block storage volume.



5. Oracle Enterprise Manager Deployment Prerequisites

Before you deploy the Oracle Enterprise Manager, review the following information and perform all of the prerequisite tasks that are described below.

- Licensing Requirements
 - The Oracle Enterprise Manager licensing information is available in the user [manual](#).
- Obtain an Oracle Cloud Infrastructure account.
 - For more information, go to [Oracle Cloud](#).
- Obtain the OCID of the Compartment where the Oracle Enterprise Manager VM Instance will be created

See [Compartments](#) for details

- Create a Dynamic Group 'OEM_Group' to group the instances of the Compartment and add the following rule

```
ALL {instance.compartment.id = '<compartment ocid>'}
```

See [Dynamic Groups](#) for details.

- Create a Policy with following rules in the root compartment of the tenancy

Allow dynamic-group OEM_Group to manage instance-family in tenancy

Allow dynamic-group OEM_Group to manage volume-family in tenancy

See [Policies](#) for details.

- Create a Virtual Cloud Network with following
 - Public Subnet
 - Internet Gateway

See [Virtual Cloud Network](#) for details

- Update the Default Security List of the VCN and add the following Stateful Ingress rules

Destination Port Range	Protocol Type	Service
22	TCP	SSH
7803	TCP	Console
4903	TCP	Agent Upload
7301	TCP	JVMD
9851	TCP	BIP

See [Security Lists](#) for details.

6. Oracle Enterprise Manager Deployment

6.1 Deployment

- 1 From the OCI Main Menu, Click on the Marketplace
- 2 Search for Oracle Enterprise Manager 13.3 and Click on it
- 3 Review the Oracle Enterprise Manager Overview and Click on Launch Instance
- 4 Select the Package Version, Compartment and Accept the Terms of Use and click Launch Instance
- 5 Specify the following
 - a) Instance Name
 - b) Availability Domain
 - c) Select the shape for VM. You can choose any shape that is available.

Note: Oracle recommends VM.Standard.E2.8 or BM.Standard2.52 shape for production deployments.
 - d) ssh public key that will be used to access the VM instance. See [Creating Keys](#) for details.
 - e) Select the Virtual Cloud Network and Subnet created in prerequisites

6 Click on Create

6.2 Accessing the Oracle Enterprise Manager Console

1. Wait for the VM Instance to get created and status to become RUNNING
2. Click on the instance and copy the Public IP Address
3. SSH to the VM instance with the ssh key

```
ssh -i <private_ssh_key> opc@<public IP Address>
```

The Oracle Enterprise Manager configuration will take 30 minutes to complete. Execute the below steps after 30 minutes.

4. Change to 'oracle' user by executing below in the command line

```
sudo su - oracle
```

5. Check the OMS status by executing below command

```
/u01/app/em13c/middleware/bin/emctl status oms
```

6. The password for the OEM user sysman, EM Agent Registration Password, Fusion Middleware user weblogic and Node Manager can be accessed in below file

```
cat /root/.oem/.sysman.pwd (Access with root user)
```

7. Change the sysman password by executing the below command

```
/u01/app/em13c/middleware/bin/emctl config oms -  
change_repos_pwd
```

8. Login to the OEM Console using below

<https://<public ip address>:7803/em> OR

Update the local host name resolution to have below entry

```
emcc.marketplace.com <public ip address>
```

and use <https://emcc.marketplace.com:7803/em>

6.3 Monitoring

The Oracle Enterprise Manager can be used to monitor and manage the cloud resources like DB System, Fusion Middleware. The monitoring can be done with local EM Agent. Before installing local EM Agent, the following entry to be made in /etc/hosts file of the VM instance where the target is running.

```
emcc.marketplace.com <private IP address of the OEM VM>
```

For more details on monitoring various targets, see [manual](#)
Use OCI's SMTP [configuration](#) to setup OEM SMTP.

6.4 Troubleshoot Oracle Enterprise Manger Installation

The installation log is located at `/var/log/emgc_install.log`.

a. OCI Authentication issues

Make sure dynamic group and policies set properly if you find any authentication related errors in log file. Rerun the below script after fixing the dynamic group and policies mentioned in prerequisites

```
$ sudo -s  
$ cd /root/bootstrap  
$ ./configure_db_and_oms.sh
```