Traditional Platform Pack Installation of JD Edwards EnterpriseOne on Oracle Bare Metal Cloud Services

ORACLE WHITE PAPER | AUGUST 2017



Introduction	2
Prerequisites	2
Create a Virtual Cloud Network (VCN)	3
Creating Block Volume Storage	9
Creating a Linux Instance	. 10
Logging in to a Linux-based Server from a Microsoft Windows Machine	. 14
Attaching Block Volume Storage to the Database Server and Mounting on the /u01 File System	
Setup on JD Edwards EnterpriseOne Linux-based Servers	. 23
Configuring Linux-based Servers to Run OUI in GUI Mode	. 26
Downloading JD Edwards EnterpriseOne Software from e-delivery	. 32
Installing the JD Edwards EnterpriseOne 9.2 Server Manager Console on Ora BMCS	
Installing a JD Edwards 9.2 Database Server on Oracle BMCS	. 32
Installing a JD Edwards EnterpriseOne 9.2 Enterprise Server on Oracle BMCS	33
Installing JD Edwards 9.2 Web Servers on Oracle BMCS	. 33
Creating a Microsoft Windows-based Instance	. 34
Attaching Block Volume Storage to a Microsoft Windows Server and Mounting the D:\ Drive	
Installing the JD Edwards Deployment Server on a Microsoft Windows VM	. 48
Creating a Database Server Instance Using the Database Service (DBS)	. 48
Preparing the DBS for Installation of JD Edwards EnterpriseOne	. 54

Introduction

This document describes the manual method to provision and configure Oracle Bare Metal Cloud Services (BMCS) resources for use with the traditional installation of JD Edwards EnterpriseOne, which uses the Platform Pack. Examples of BMCS resources that must be set up include the launching of Compute Instances, creation of Block Volume Storage, and setup of the Virtual Cloud Network (VCN).

Prerequisites

This section includes the mandatory steps you must perform before you can start provisioning resources on Bare Metal Cloud Services.

- 1. You must have a subscription to use these Oracle Bare Metal Cloud Services:
 - Compute
 - Network
 - Storage
 - Oracle Identity Management (IAM)
 - Oracle Database
- 2. Create JDEE1 compartment using this procedure.
 - a. Log in to the Bare Metal Cloud Console and navigate to Identity > Compartment.
 - b. Click the Create Compartment button.



- c. On the Create Compartment dialog box, enter a valid name and description.
- Click the Create Compartment button.



For more information on Compartments for Oracle Bare Metal Services, refer to:

https://docs.us-phoenix-1.oraclecloud.com/Content/Identity/Tasks/managingcompartments.htm

3. Create a private/public key pair.

For detailed steps, refer to the section entitled: **Generate Secure SHell (SSH) Key Pairs on Your Local System** in this document:

http://www.oracle.com/webfolder/technetwork/tutorials/obe/cloud/compute-iaas/JDE_OneClick_Prov/Preparing/preparing_for%20one_click_deployment_92.html

Create a Virtual Cloud Network (VCN)

After the Compartment created in the previous step has a status of Available, use this procedure to create a Virtual Cloud Network (VCN).

- Select the Compartment you created in the previous step and navigate to Networking > Virtual Cloud Networks.
- 2. Click the Create Virtual Cloud Network button.



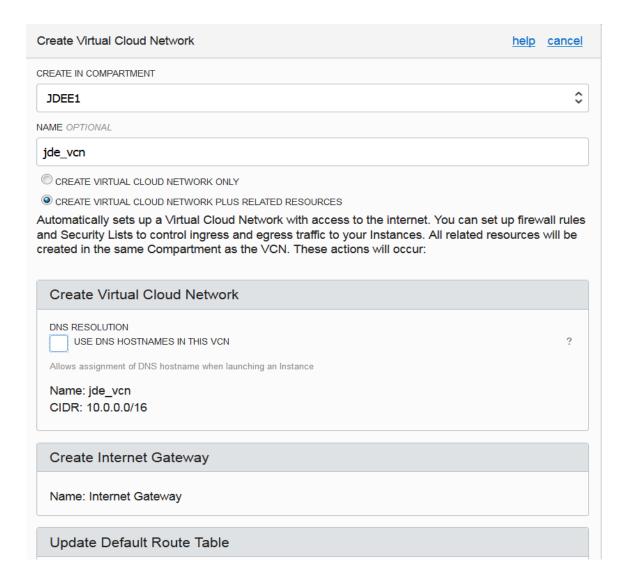
3. On Create Virtual Network, complete the required fields.

Important: In the CREATE IN COMPARTMENT section, make sure you select this check box:

• CREATE VIRTUAL CLOUD NETWORK PLUS RELATED RESOURCES

Important: In the DNS RESOLUTION section, make sure you deselect this check box:

• USE DNS HOSTNAMES IN THIS VCN

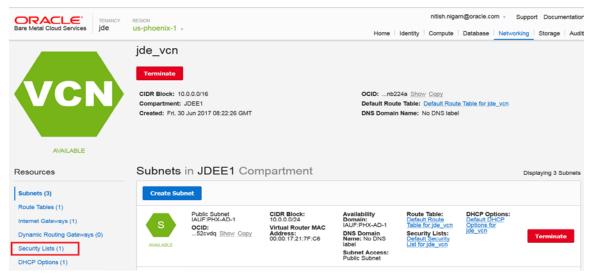


4. Verify that all VCN resources have been created successfully.

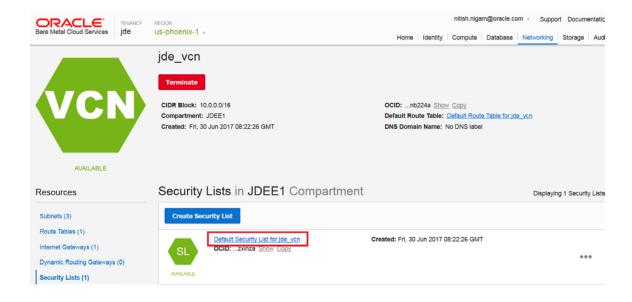
Create Virtual Cloud Network Create Virtual Cloud Network The Virtual Cloud Network was created: jde vcn Create Internet Gateway The Internet Gateway "Internet Gateway jde_vcn" was created Update Default Route Table The Route Table was updated: Default Route Table for jde vcn Create Subnet Public Subnet IAUF:PHX-AD-1 was created Create Subnet Public Subnet IAUF:PHX-AD-2 was created Create Subnet Public Subnet IAUF:PHX-AD-3 was created

5. In the section entitled: **The virtual cloud network was created:** <u>name</u>, click the link for the VCN that was created. In this example, the VCN is named **jde_vcn**.

6. With the VCN displayed, in the left pane under Resources, select **Security List**.



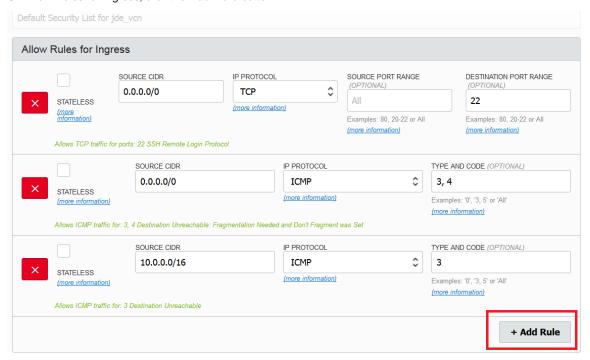
7. In the Security Lists section, click the link for <u>Default Security List for vcn_name</u> for your VCN.



8. On Default Security List, click the Edit All Rules button.



9. On Allow Rules for Ingress, click the **Add Rule** button.



- 10. On Allow Rules for Ingress, add ports to allow external public access for these resources:
 - WebLogic Admin Console

In this example, the Admin console port is 7001. If you are using some other port, make sure you provide that port number.

• HTML (JAS) Server

In this example, the HTML Server port is 8001. If you are using some other port, make sure you provide that port number.

Server Manager Console

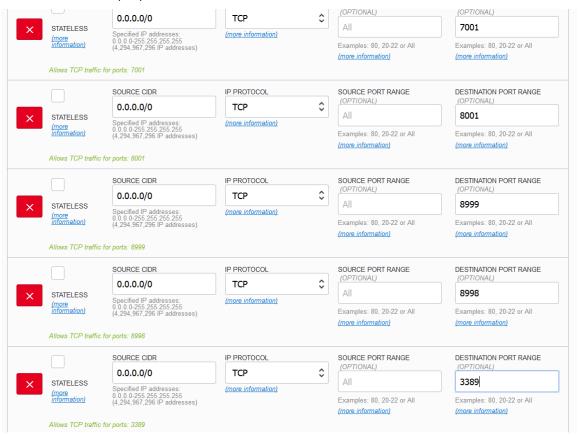
For example, port 8999.

Secure Server Manager Console

For example, port 8998.

• Remote Desktop Protocol (RDP) Connection

For example, port 3389.



11. After adding the required ingress security rules, click the Save Security List Rules button.

The setup of your VCN is complete.

For more information on Bare Metal Network Services, refer to: https://docs.us-phoenix-1.oraclecloud.com/Content/Network/Concepts/overview.htm

Creating Block Volume Storage

This section includes steps for creating Block Volume Storage. Block Volume Storage is storage that is in addition to the default storage amount of 128 GB that is allocated to each instance upon creation. Make sure you create additional Block Volume Storage in the same Availability Domain in which you are planning to provision for the respective JD Edwards EnterpriseOne server.

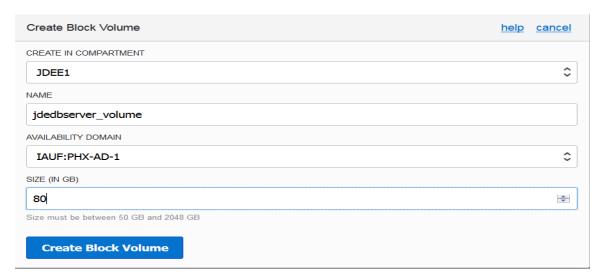
For JD Edwards EnterpriseOne, you must create additional Block Volume Storage for these servers:

- Linux-based Database Server
- Microsoft Windows Deployment Server
 - 1. In the Compartment you created for JD Edwards EnterpriseOne, navigate to Storage > Block Volumes.
 - 2. Click the Create Block Volume button.

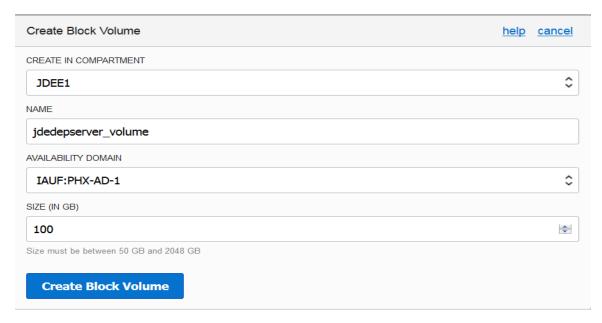


3. On Create Block Volume, complete the required fields. For JD Edwards EnterpriseOne, you must create Block Volume Storage for the Database Server and the Deployment Server. In this example, 80 GB and 100 GB block volumes are used for Database Server and Deployment Server, respectively. These amounts are sufficient to support installation of DV and PS path codes. If you are planning to install all path codes, you may need to increase the size.

The below example is for the Database Server, where NAME is the name of the associated instance and size is 80 GB.



The below example is for the Deployment Server, where NAME is the name of the associated instance and size is 80 GB.



Click the Create Block Volume button.

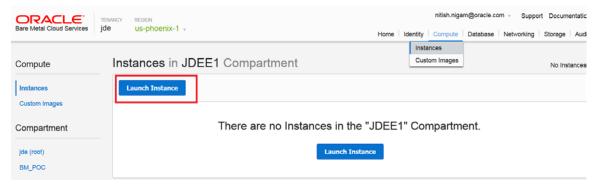
The setup for Block Volume Storage for the Database Server and the Deployment Server is complete.

For more information on Bare Metal Storage Services, refer to: https://docs.us-phoenix-1.oraclecloud.com/Content/Block/Concepts/overview.htm

Creating a Linux Instance

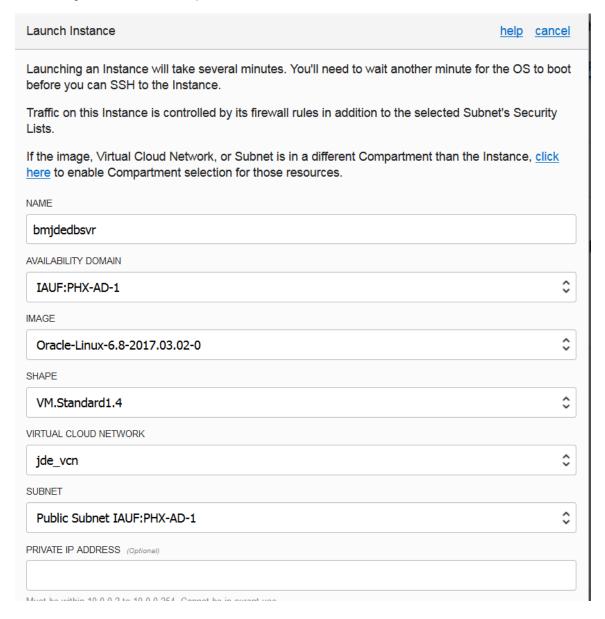
This section describes how to create (launch) a Linux instance for JD Edwards EnterpriseOne Linux-based Servers such as the Enterprise Server, Database Server, HTML Servers, and AIS Servers.

- 1. In the Compartment you created for JD Edwards EnterpriseOne, navigate to Compute > Instances.
- 2. Click the Launch Instance button.

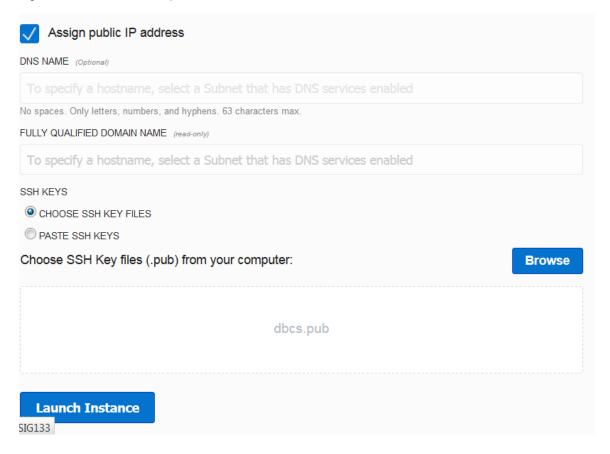


- 3. On the Launch Instance details screen, complete these fields:
 - Name Display name of the instance. This will be the hostname of the respective JD Edwards EnterpriseOne server.
 - Availability Domain Domain where you want to provision your instance. Make sure you select the same domain in which you have created Block Volume Storage.
 - Image From the drop-down menu, select from the list of Oracle Linux Operating System images. Refer
 to Oracle Certifications for JD Edwards for supported Linux Operating Systems.
 - Shape Select a shape prefixed with VM.Standard.1.x where x is the number of cores. All JD Edwards Linux-based servers except the Database Server can operate with the VM.Standard1.1 shape. Additional cores are required for the Database Server, either VM.Standard1.2 or VM.Standard1.4, depending on the number of path codes you are installing.
 - Virtual Cloud Network Select the VCN that you previously created. In this document, the VCN was named jde_vcn.
 - Subnet Select an available subnet using the drop-down menu where the available subnets are those
 that are associated with the selected Availability Domain. For example, if you have selected IAUF:PHXAD1 as the Availability Domain, then only the subnet created for AD1 will be displayed in the drop-down
 menu.
 - Select the Assign public IP address check box to enable the selections in that section.
 - In the SSH KEYS section, click the CHOOSE SSH KEY FILES radio button and browse for your ssh
 public key created as a prerequisite step. You will be using its corresponding private key when
 connecting to a Linux instance.

The following screen shows the first portion of the Launch Instance details screen.



The following screen shows the second portion of the Launch Instance details screen.



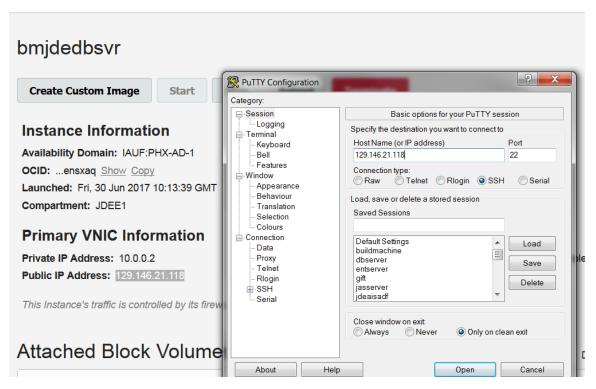
- 4. Click the **Launch Instance** button. It takes some time for the instance to become available.
- 5. Repeat these steps for each JD Edwards EnterpriseOne Linux-based server, which includes all machines except the Windows-based Deployment Server and the Windows-based Development Client.

For more information on Bare Metal Cloud Compute Service, refer to:

 $\underline{https://docs.us\text{-}phoenix\text{-}1.oraclecloud.com/Content/Compute/Concepts/computeoverview.htm}$

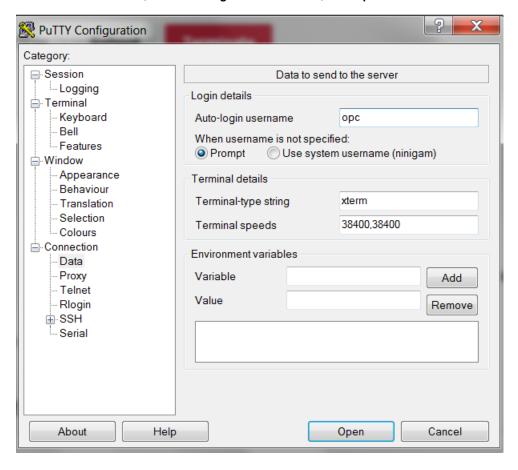
Logging in to a Linux-based Server from a Microsoft Windows Machine

- On the View Instance page, locate the public IP address for the Linux-based server to which you want to log in. For example, the below image shows an example of a Database Server named **bmjdedbsvr** that has been assigned a public IP address of 129.146.21.118.
- On your Microsoft Windows machine, open PuTTY and in the Host Name (or IP address) field, specify the public IP address, which in this example is 129.146.21.118.

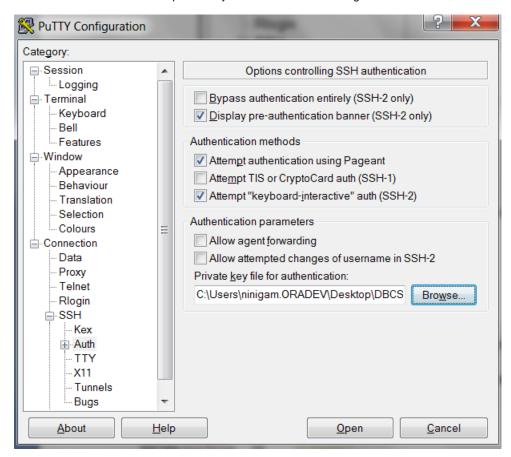


3. In the Connection type: section, click the SSH radio button.

- 4. In the left pane, navigate to Connection > Data.
- 5. On Data to send to server, in the **Auto login user name** field, enter **opc** as the username.



- 6. In the left pane, navigate to Connection > SSH > Auth.
- On Options controlling SSH authentication, in the Private key file for authentication: field, click the Browse button to locate a valid private key file to authenticate the login.



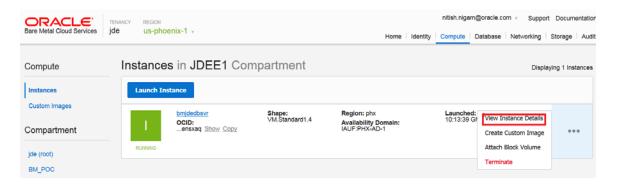
8. Click the **Open** button to complete the login to the Linux-based instance.

Attaching Block Volume Storage to the Database Server and Mounting on the /u01 File System

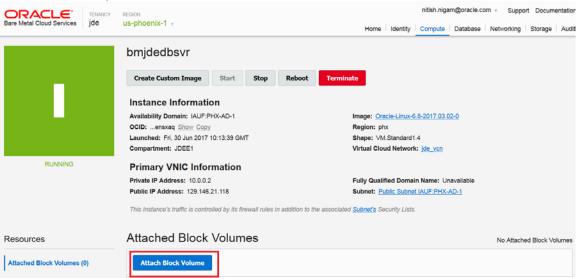
This section provides the steps to attach Block Volume Storage to the Linux-based Database Server and mounting it on the /u01 file system.

Note: For Linux-based servers in a JD Edwards EnterpriseOne environment, this step is only required for the Database Server.

- 1. Verify that the Database Server instance is in the **Running** state.
- 2. Click the (...) action item and select View Instance Details.



3. On the View Instance, click the Attach Block Volume button.



- 4. On Attach Block Volume, complete the following fields:
 - BLOCK VOLUME COMPARTMENT

By default, the system displays the current Compartment. If you have created Block Volume Storage in another compartment, then use the drop-down menu to select that compartment.

BLOCK VOLUME

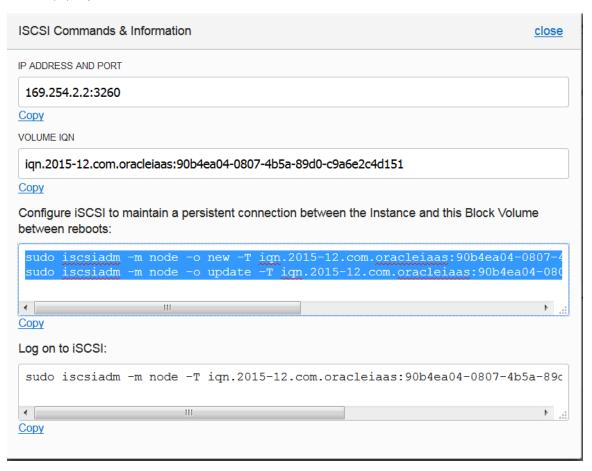
Select the Block Volume Storage that you previously created.

- Do not select the REQUIRE CHAP CREDENTIALS check box.
- 5. Click the Attach button.



6. Wait for the status of the Block Volume Storage to change to Attached.

7. Click the (...) ellipsis and select ISCSI Commands and information.



- 8. Log in to the Database Server instance as the opc user.
- From ISCSI Commands and Information, click the Copy command for Configure iSCSI to maintain a
 persistent connection between the Instance and this Block Volume between reboots.
- 10. On the Database Server, run the copied iSCSI commands one by one.
- 11. From ISCSI Commands and Information, click the Copy command for Log on to iSCSI.

```
Using username "opc".

Authenticating with public key "rsa-key-20160824"

[opc@bmjdedbsvr ~|$ sudo iscsiadm -m node -o new -T ign.2015-12.com.oracleiaas:90b4ea04-0807-4b5a-89d0-c9a6e2c4d151 -p 169.254.2.2:3260

New iSCSI node [tcp:[Nw=,ip=,net_if=,iscsi_if=default] 169.254.2.2.3260,-1 ign.2015-12.com.oracleiaas:90b4ea04-0807-4b5a-89d0-c9a6e2c4d151 -p 169.254.2.2:3260

New iSCSI node [tcp:[Nw=,ip=,net_if=,iscsi_if=default] 169.254.2.2.3260,-1 ign.2015-12.com.oracleiaas:90b4ea04-0807-4b5a-89d0-c9a6e2c4d151 -p 169.254.2.2:3260

[opc@bmjdedbsvr ~]$ sudo iscsiadm -m node -o update -T ign.2015-12.com.oracleiaas:90b4ea04-0807-4b5a-89d0-c9a6e2c4d151 -p 169.254.2.2:3260 -1

[opc@bmjdedbsvr ~]$ sudo iscsiadm -m node -T ign.2015-12.com.oracleiaas:90b4ea04-0807-4b5a-89d0-c9a6e2c4d151 -p 169.254.2.2:3260]

Logging in to [iface: default, target: ign.2015-12.com.oracleiaas:90b4ea04-0807-4b5a-89d0-c9a6e2c4d151, portal: 169.254.2.2;3260] (multiple)

Login to [iface: default, target: ign.2015-12.com.oracleiaas:90b4ea04-0807-4b5a-89d0-c9a6e2c4d151, portal: 169.254.2.2;3260] successful.

[opc@bmjdedbsvr ~]$
```

12. Use this command to list available mountable iSCSI devices:

```
$sudo fdisk -1
```

For example, the connected volume is displayed as follows:

```
Disk /dev/sdb: 85.9 GB, 85899345920 bytes
255 heads, 63 sectors/track, 10443 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Sector size (logical/physical): 512 bytes / 4096 bytes
I/O size (minimum/optimal): 4096 bytes / 4096 bytes
Disk identifier: 0x000000000

[opc@bmjdedbsvr ~]$
```

- 13. Use these steps to mount the storage on the /u01 file system:
 - a. Use this command to list devices:

```
$sudo ls -1 /dev/sd*
```

```
[opc@bmjdedbsvr:~
[opc@bmjdedbsvr ~]$ sudo ls -l /dev/sd*
brw-rw----. 1 root disk 8, 0 Jun 30 10:14 /dev/sda
brw-rw----. 1 root disk 8, 1 Jun 30 10:14 /dev/sda1
brw-rw----. 1 root disk 8, 2 Jun 30 10:14 /dev/sda2
brw-rw----. 1 root disk 8, 3 Jun 30 10:14 /dev/sda3
brw-rw----. 1 root disk 8, 16 Jun 30 10:34 /dev/sdb
[opc@bmjdedbsvr ~]$
```

The device naming convention is that the first attached Block Volume Storage will be in device /dev/sdb, while the second attached block volume will be in /dev/sdc and so on.

b. Use this command to create a file system:

\$sudo mkfs -t ext3 /dev/sdb

```
opc@bmjdedbsvr:~
[opc@bmjdedbsvr ~]$ sudo mkfs -t ext3 /dev/sdb mke2fs 1.43-WIP (20-Jun-2013)
/dev/sdb is entire device, not just one partition!
Proceed anyway? (y,n) y
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
5242880 inodes, 20971520 blocks
1048576 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=4294967296
640 block groups
32768 blocks per group, 32768 fragments per group
8192 inodes per group
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,
        4096000, 7962624, 11239424, 20480000
Allocating group tables: done
Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done
[opc@bmjdedbsvr ~]$
```

c. Create the /u01 file system and mount storage with these commands:

```
$sudo mkdir /u01
$sudo mount /dev/sdb /u01
$df -h (this command verifies that the Block Volume Storage on /dev/sdb is mounted on /u01)
```

```
opc@bmjdedbsvr:~
[opc@bmjdedbsvr ~]$ sudo mkdir /u01
[opc@bmjdedbsvr ~]$ sudo mount /dev/sdb /u01
[opc@bmjdedbsvr ~]$ df -h
Filesystem
               Size Used Avail Use% Mounted on
/dev/sda3
                38G 1.1G
                            35G
                                  4왕 /
                14G
                            14G
                                  0% /dev/shm
tmpfs
/dev/sda1
               543M 280K 543M
                                  1% /boot/efi
                            75G
                79G
                      56M
/dev/sdb
                                  1% /u01
[opc@bmjdedbsvr ~]$
```

d. Edit the /etc/fstab file using this command:

\$sudo vi /etc/fstab

e. Add the following line:

```
/dev/sdb /u01 ext3 defaults,_netdev,noatime 0 0
```

```
🛂 opc@bmjdedbsvr:-
 Accessible filesystems, by reference, are maintained under '/dev/disk' See man pages fstab(5), findfs(8), mount(8) and/or blkid(8) for more info
 UID=8079e287-53d7-4b3d-b708-c519cf6829c8 /
                                                                 umask=0077,shortname=winnt 0 0
 UID=C1E8-B497
 TUID=adfa927c-4d90-48e5-af1a-3878d79eec60 swap
                                                                                      defaults
                                                                            gwap
                                                        devpts gid=5,mode=620
sysfs defaults
 vsfs
                          ext3 defaults,_netdev,noatime
            /u01
...........
 # ORACLE BARE METAL CLOUD CUSTOMERS
## If you are adding an iSCSI remote block volume to this file you MUST
## include the 'netdev' mount option or your instance will become ## unavailable after the next reboot.
## /dev/sdb
```

14. The Block Volume Storage is now attached, connected, and mounted on /u01 for the Linux-based Database Server instance.

For more information on attaching and connecting to block volumes, refer to these links:

https://docs.us-phoenix-1.oraclecloud.com/Content/Block/Tasks/attachingavolume.htm

https://docs.us-phoenix-1.oraclecloud.com/Content/Block/Tasks/connectingtoavolume.htm

Setup on JD Edwards EnterpriseOne Linux-based Servers

This section describes setup procedures that you need to perform on each of the Linux instances prior to deploying and installing JD Edwards components on them.

- 1. Disable Selinux using these steps:
 - a. Check whether Selinux is disabled or not using this command:

\$sudo getenforce

If the command output is **Disabled**, then Selinux is disabled.

If the output is either **Enforced** or **Permissive**, you must disable it by editing the /etc/selinux/config file and rebooting the machine.

```
opc@bmjdedbsvr:~

[opc@bmjdedbsvr ~]$ sudo getenforce

Enforcing

[opc@bmjdedbsvr ~]$ sudo vi /etc/selinux/config

[opc@bmjdedbsvr ~]$ sudo reboot
```

```
# This file controls the state of SELinux on the system.
# SELINUX= can take one of these three values:
# enforcing - SELinux security policy is enforced.
# permissive - SELinux prints warnings instead of enforcing.
# disabled - No SELinux policy is loaded.
SELINUX=disabled
# SELINUXTYPE= can take one of these two values:
# targeted - Targeted processes are protected,
# mls - Multi Level Security protection.
SELINUXTYPE=targeted
```

b. After the reboot is complete, verify that Selinux is disabled using this command:

\$sudo getenforce

```
Using username "opc".
Authenticating with public key "rsa-key-20160824"
[opc@bmjdedbsvr ~]$ sudo getenforce
Disabled
[opc@bmjdedbsvr ~]$
```

2. Disable firewall services using this command:

\$sudo service iptables stop

```
[opc@bmjdedbsvr.~

[opc@bmjdedbsvr ~]$ sudo service iptables stop
iptables: Saving firewall rules to /etc/sysconfig/iptables: [OK ]
iptables: Setting chains to policy ACCEPT: filter [OK ]
iptables: Flushing firewall rules: [OK ]
iptables: Unloading modules: [OK ]
[opc@bmjdedbsvr ~]$
```

Note: For Oracle Linux 7 versions, you might need to use this command:

```
$sudo service firewalld stop
```

3. By default, the hostname is displayed as <hostname>.localdomain. You must change the hostname for all Linux servers to use short hostnames using this command:

\$sudo hostname < hostname >

```
opc@bmjdedbsvr:~

[opc@bmjdedbsvr ~]$ sudo hostname

bmjdedbsvr.localdomain

[opc@bmjdedbsvr ~]$ sudo hostname bmjdedbsvr

[opc@bmjdedbsvr ~]$ sudo hostname

bmjdedbsvr

[opc@bmjdedbsvr ~]$
```

4. You must add the private IP address with the short hostname of **all** JD Edwards EnterpriseOne servers in the /etc/hosts file. For example, the following illustrates the /etc/hosts file of the Database Server.

```
#Adding JDE servers IP address with short hostnames

10.0.1.6 bmjdedepsvr
10.0.1.3 bmjdesmcsvr
10.0.1.5 bmjdejassvr
```

On each Linux-based server, you must install requisite packages from the yum repository using this command:

```
$yum install -y zip.x86_64 unzip.x86_64 ruby.x86_64 ruby-devel.x86_64
samba.x86_64 samba-client.x86_64 zlib-devel.i686 nmap bind-utils compat-
libcapl.x86_64 compat-libstdc++-33.i686 compat-libstdc++-33.x86_64 elfutils-
libelf-devel.x86_64 gcc-c++.x86_64 gcc.x86_64 glibc.i686 glibc.x86_64 glibc-
devel.i686 glibc-devel.x86_64 ksh.x86_64 libaio.i686 libaio.x86_64 libaio-
devel.i686 libaio-devel.x86_64 libgcc.i686 libgcc.x86_64 libxtdc++.i686
libstdc++.x86_64 libstdc++-devel.x86_64 libX11.i686 libX11.x86_64 libXau.i686
libXau.x86_64 libxcb.i686 libxcb.x86_64 libXext.i686 libXext.x86_64
libXi.i686 libXi.x86_64 libXtst.i686 libXtst.x86_64 nss-softokn-
freebl.i686 sysstat.x86_64 unixODBC-devel.x86_64 unixODBC.x86_64 zlib-
devel.x86_64 zlib.i686
```

6. For use by the OUI installer, you must create the **oracle** user and **oinstall** group using these commands:

```
$sudo groupadd oinstall
$sudo useradd -g oinstall oracle
```

```
Using username "opc".

Authenticating with public key "rsa-key-20160824"

[opc@bmjdedbsvr ~]$ sudo groupadd oinstall

[opc@bmjdedbsvr ~]$ sudo useradd -g oinstall oracle

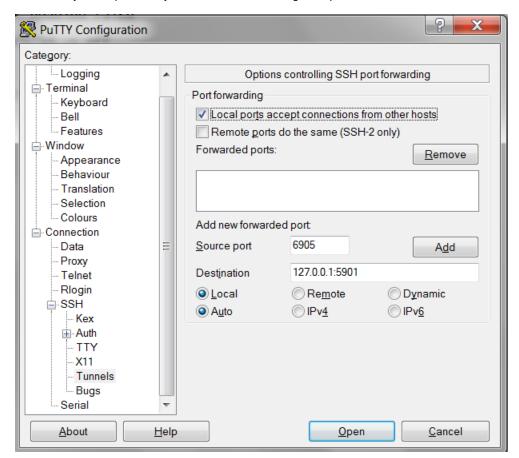
[opc@bmjdedbsvr ~]$ id -a oracle

uid=501(oracle) gid=501(oinstall) groups=501(oinstall)
```

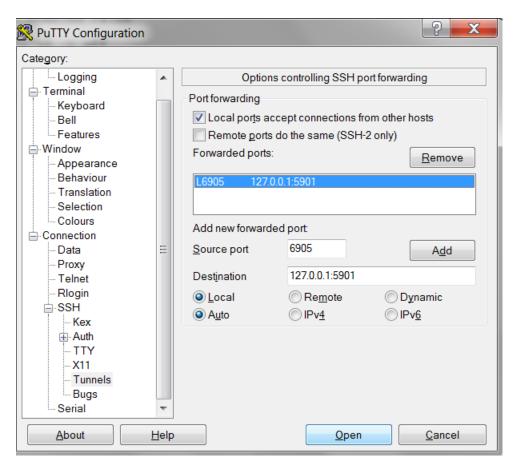
Configuring Linux-based Servers to Run OUI in GUI Mode

This section provides steps to set up VNC view to run JD Edwards OUI installers in graphical user interface mode.

- 1. In PuTTY, navigate to Connection > SSH.
- 2. Create an SSH tunnel with these characteristics:
 - 1. Source as 6905
 - 2. Destination as 127.0.0.1:5901
- In addition to the above values, use PuTTY to log in to the Linux-based instance providing public IP, username opc, and private key as shown in the following example:



4. Click the **Add** button.



5. Install packages from yum using the following commands:

```
$sudo yum -y install tigervnc-server.x86_64
$sudo yum -y install tigervnc.x86_64
```

```
| [opc@hmjdedbsvr -]5 sudo yum -y install tigervnc.x86_64 | Loaded plugins: kernel-update-handler, ulninfo | Setting up Install Process | Resolving Dependencies | Setting up Install Process | Resolving Dependencies | Setting up Install Process | Resolving Dependencies | Setting up Install Process | Setting up Installing: | Setting up Install | Setting up Installing: | S
```

6. If your OS is Linux 6, install the following package from yum:

```
$sudo yum -y groupinstall 'desktop'
```

If your OS is Linux 7, install the following package from yum:

\$sudo yum groups install "Server with GUI"

7. Switch the user to **oracle** using these commands:

```
$sudo su - oracle
$ gconftool-2 -s -t bool /apps/gnome-screensaver/lock_enabled false
$vncserver :1 -depth 16 -alwaysshared -geometry 1200x750 -s off
```

8. When the system prompts you to create a password, you must enter a value and reenter it to verify the password.

```
[opc@bmjdedbsvr~]$ sudo su - oracle
[oracle@bmjdedbsvr~]$ gconftool-2 -s -t bool /apps/gnome-screensaver/lock_enabled false
[oracle@bmjdedbsvr~]$ vncserver :1 -depth 16 -alwaysshared -geometry 1200x750 -s off

You will require a password to access your desktops.

Password:
Verify:
xauth: file /home/oracle/.Xauthority does not exist
xauth: (stdin):1: bad display name "bmjdedbsvr:1" in "add" command

New 'bmjdedbsvr:1 (oracle)' desktop is bmjdedbsvr:1

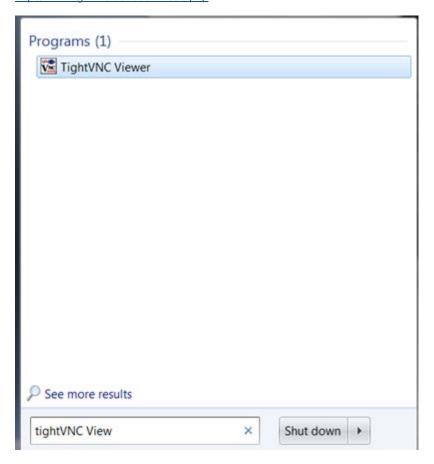
Creating default startup script /home/oracle/.vnc/xstartup
Starting applications specified in /home/oracle/.vnc/xstartup
Log file is /home/oracle/.vnc/bmjdedbsvr:1.log

[oracle@bmjdedbsvr ~]$
```

9. From your Microsoft Windows machine, start a VNC Viewer.

In this document, the VNC viewer used is TightVNC Viewer, which can be downloaded at the following link:

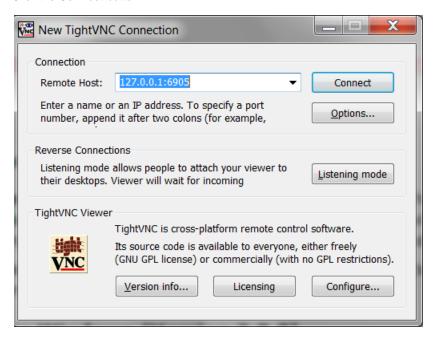
http://www.tightvnc.com/download.php



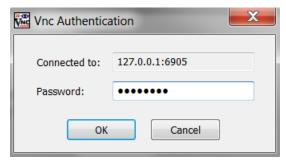
10. On New TightVNC Connection, enter the following value in the **Remote Host** field:

127.0.0.1:6905

11. Click the Connect button.

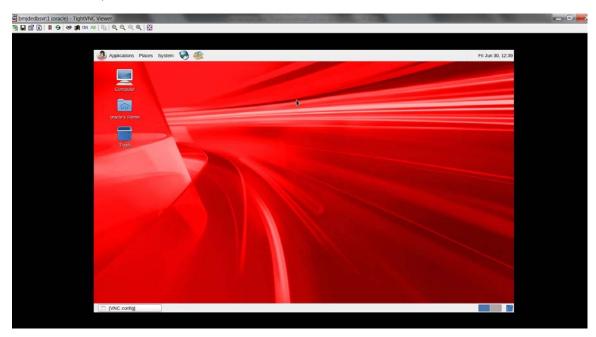


12. On VNC Authentication, provide the password that you defined in Step 8 of this procedure.



13. Click the **OK** button.

14. The system displays the GUI for the specified Linux-based server. You can use this GUI to run all your JD Edwards EnterpriseOne OUI installers.



15. In order to download the JD Edwards EnterpriseOne software from the Update Center, you must install the Firefox internet browser using these commands:

```
$sudo yum list | grep firefox
$sudo yum install firefox.x86_64
```

Your Linux-based server is ready to run the OUI installers in GUI mode.

Downloading JD Edwards EnterpriseOne Software from e-delivery

 Launch Firefox in a VNC session and download required JD Edwards EnterpriseOne installers from this location:

edelivery.oracle.com

For more information, refer to the document entitled: *How To Download JD Edwards 9.2 Setup File From New Oracle Software Delivery Cloud Website (Doc ID 2060468.1)* at the following link:

https://support.oracle.com/epmos/faces/DocumentDisplay?id=2060468.1

Installing the JD Edwards EnterpriseOne 9.2 Server Manager Console on Oracle BMCS

This section provides an overview on how to install the JD Edwards EnterpriseOne Server Manager Console (SMC) on BMCS using the existing traditional OUI installer.

- 1. Install a supported version of JDK as specified by the Oracle Certifications for JD Edwards.
- Install a supported version of Oracle WebLogic Server as specified by the Oracle Certifications for JD Edwards.
- Download and extract the zip file of the installer for Server Manager Console.
- Refer to the document at this link to install Server Manager Console on WebLogic on UNIX:

http://docs.oracle.com/cd/E61420_01/doc.92/e55724/management_console_install.htm#EOIUO1155

Installing a JD Edwards 9.2 Database Server on Oracle BMCS

This section provides an overview on how to install a JD Edwards EnterpriseOne 9.2 Database Server using the existing traditional OUI installer.

- Install the Oracle database software on the Linux-based Database Server running on Oracle BMCS.
 Refer to the Oracle Certifications for JD Edwards EnterpriseOne for supported versions of the Oracle
 database that are compatible with your Tools Release.
- 2. Refer to the following guide to install Oracle 12c database on Linux:

https://docs.oracle.com/database/121/nav/portal_11.htm

- For best practices, the following prerequisites must be met:
 - You must create and configure a Pluggable Database (PDB) named JDEORCL.
 - You must install the Oracle database as the oracle user -- not as any other user such as opc.
 - You must set the database character set to AL32UTF8.
 - You must set the database national character set for the Unicode page setting to AL16UTF16.
 - Database must be running with PDB (JDEORCL) set to OPEN_MODE.
 - Minimum required DB processes to provision the JD Edwards EnterpriseOne Database Server is 1500 (if not already available).
 - Files System IO option should be set to SETALL (if not already set).

4. For a detailed list of commands necessary to set up the prerequisites for the Oracle Database running in the Oracle Bare Metal Cloud Service for use with JD Edwards EnterpriseOne, refer to the section entitled: *Prerequisites for the Oracle Database on the Oracle Compute Cloud Service* in the OBE located at this link:

http://www.oracle.com/webfolder/technetwork/tutorials/obe/cloud/compute-iaas/JDE_OneClick_Prov/Preparing/preparing_for%20one_click_deployment_92.html

After the PDB is ready as described in the preceding steps, refer to this guide for instructions on installing JD Edwards Database Server using the Platform Pack OUI installer:

http://docs.oracle.com/cd/E61420 01/doc.92/e55724/platform_pack.htm#EOIUO00004

Installing a JD Edwards EnterpriseOne 9.2 Enterprise Server on Oracle BMCS

This section provides an overview on how to install a JD Edwards 9.2 Enterprise Server using the existing traditional Platform Pack OUI installer.

- Install a supported version of a 32-bit JDK and JRE as specified by the Oracle Certifications for JD Edwards EnterpriseOne.
- Install a supported version of the Oracle 32-bit database client as specified by the Oracle Certifications for JD Edwards EnterpriseOne.
- 3. Modify the tnsnames.ora file for the Oracle database client with an entry specifying the pdb name.
- 4. As the system user, verify database connectivity to the database installed by the OUI installer, which is named **jdeorcl**, using these commands:

```
$sudo su - oracle
$sqlplus system/<system_user_password>@jdeorcl
```

Refer to this document for instructions on installing a JD Edwards EnterpriseOne Enterprise Server using the Platform Pack OUI installer:

http://www.oracle.com/webfolder/technetwork/tutorials/obe/cloud/compute-iaas/JDE_OneClick_Prov/Preparing/preparing_for%20one_click_deployment_92.html

Installing JD Edwards 9.2 Web Servers on Oracle BMCS

This section provides an overview on how to deploy JD Edwards EnterpriseOne 9.2 web server components on Oracle BMCS.

- Install a supported version of a JDK as specified by the Oracle Certifications for JD Edwards EnterpriseOne.
- Install a supported version of Oracle WebLogic Server as specified by the Oracle Certifications for JD Edwards EnterpriseOne.
- 3. Install a Server Manager Agent as described in this guide:

http://docs.oracle.com/cd/E61420_01/doc.92/e55724/install_agent.htm#EOIUO1243

4. Create web servers using Server Manager Console as described in this guide:

https://docs.oracle.com/cd/E61420_01/doc.92/e61438/toc.htm

Creating a Microsoft Windows-based Instance

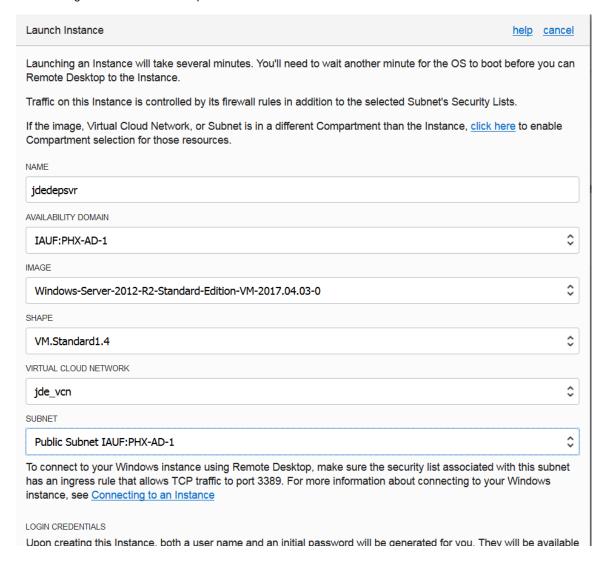
This section describes steps to launch a Microsoft Windows VM instance on Oracle BMCS. This instance is for use by JD Edwards components that run exclusively on Microsoft Windows, such as the Deployment Server.

- 1. Navigate to Compute > Instances for your compartment.
- Click the Launch Instance button.

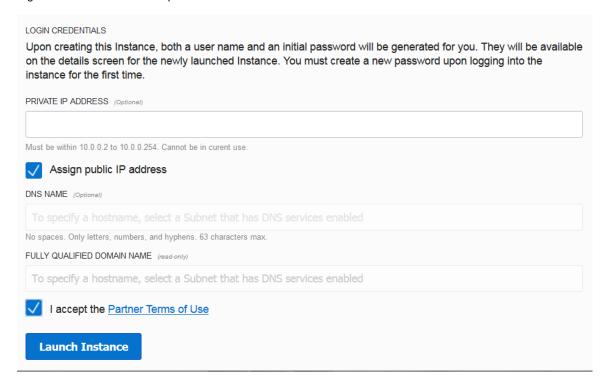


- 3. On the Launch Instance details screen, complete these fields:
 - Name Display name of the instance. This will be the hostname of the respective JD Edwards EnterpriseOne server.
 - Availability Domain Domain where you want to provision your instance. Make sure you select the same domain in which you have created Block Volume Storage.
 - Image From the drop-down menu, select from the list of Microsoft Windows Operating System images. Refer to Oracle Certifications for JD Edwards for supported operating systems.
 - Shape Select a shape prefixed with VM.Standard.1.x where x is the number of cores. The
 recommended shape for a Deployment Server is either VM.Standard1.2 or VM.Standard1.4,
 depending on the number of path codes you are installing.
 - Virtual Cloud Network Select the VCN that you previously created. In this document, the VCN was named jde_vcn.
 - Subnet Select an available subnet using the drop-down menu where the available subnets are
 those that are associated with the selected Availability Domain. For example, if you have selected
 IAUF:PHX-AD1 as the Availability Domain, then the only subnet created for AD1 will be displayed in
 the drop-down menu.
 - Select the Assign public IP address check box to enable the selections in that section.
 - Review the <u>Partner Terms of Use</u> and click the check box indicating you accept the terms.
 - Wait for a while until the status of the Microsoft Windows VM instance changes to Running.

The following screen shows the first portion of the Launch Instance details screen.



The following screen shows the second portion of the Launch Instance details screen.



For more details on launching a BMCS instance, refer to:

https://docs.us-phoenix-1.oraclecloud.com/Content/Compute/Tasks/launchinginstance.htm

Attaching Block Volume Storage to a Microsoft Windows Server and Mounting to the D:\ Drive

 After the Microsoft Windows VM has a status of Running, click the (...) action item and select View Instance Details.



2. On the Instance Detail page, click the Attach Block Volume button.



- 3. On the Attach Block Volume details page, complete these fields:
 - BLOCK VOLUME COMPARTMENT

By default, the system displays the current Compartment. If you have created Block Volume Storage in another compartment, then use the drop-down menu to select that compartment.

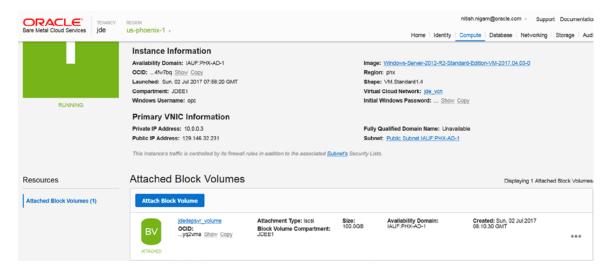
BLOCK VOLUME

Select the Block Volume Storage that you previously created.

- Do not select the REQUIRE CHAP CREDENTIALS check box.
- 4. Click the Attach button.



5. Wait for the status of the Block Volume Storage to change to Attached.



For more information on attaching Block Volume Storage, refer to:

https://docs.us-phoenix-1.oraclecloud.com/Content/Block/Tasks/attachingavolume.htm

Connect to the Microsoft Windows VM with a Remote Desktop Protocol (RDP) connection using this command in a command window:

mstsc /f

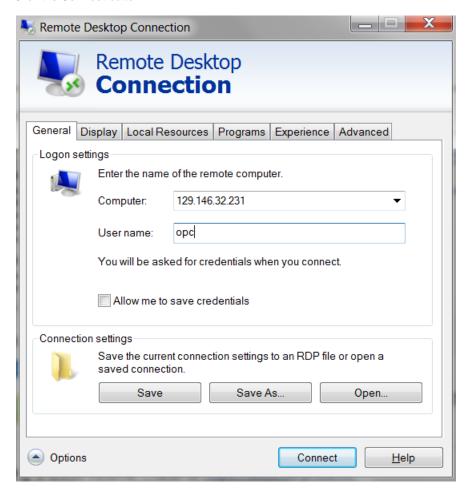
- 7. On Remote Desktop Connection, complete these fields:
 - Computer

Enter the public IP address, which can be derived from the Instance Details for the Microsoft Windows instance.

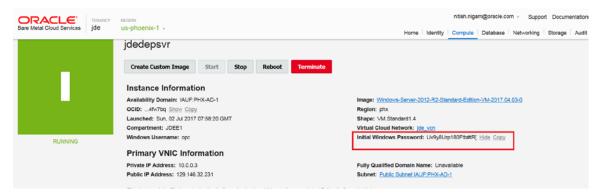
User name

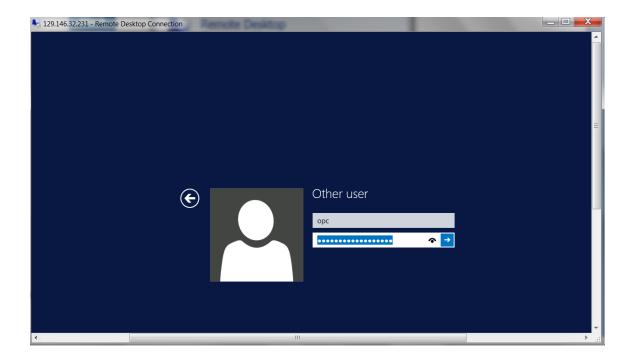
Enter the value opc.

8. Click the Connect button.

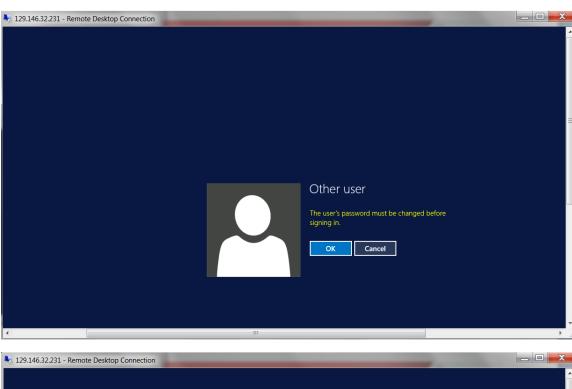


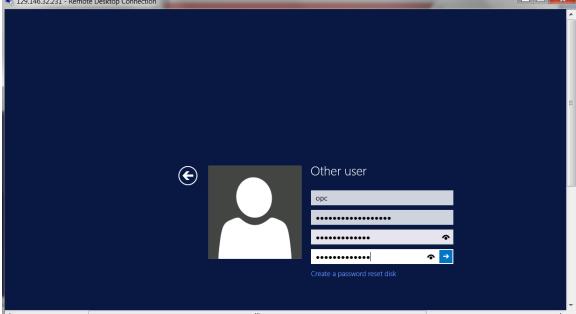
9. You are prompted to enter the password. This password is displayed on the Instance Details screen as shown below:



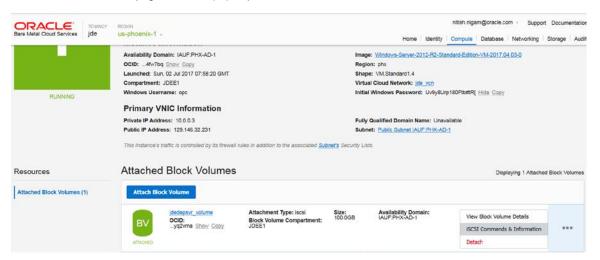


10. After entering the credentials, the first time you log in you are prompted to change the password. Change the password for the **opc** user following the Windows policy for creating User's password.

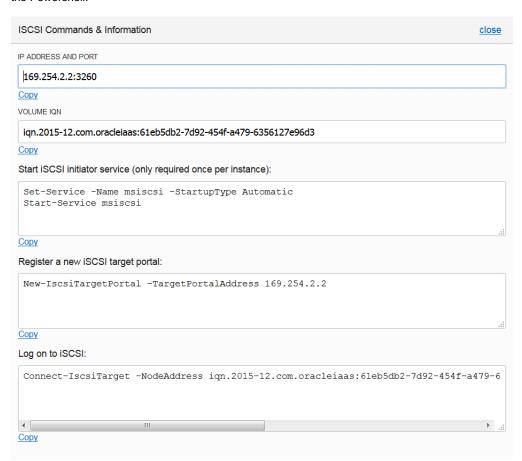




11. From the Instance Detail page, click the (...) ellipsis and select ISCSI Commands and Information.



- 12. Open a Powershell on the Microsoft Windows machine.
- 13. From **ISCSI Commands and Information**, click the <u>Copy</u> function and run the commands one by one in the Powershell.



```
Administrator: Windows PowerShell

windows PowerShell
Copyright (C) 2014 Microsoft Corporation. All rights reserved.

PS C:\Windows\system32> Set-Service -Name msiscsi -StartupType Automatic
PS C:\Windows\system32> Start-Service msiscsi
PS C:\Windows\system32> Start-Service msiscsi
PS C:\Windows\system32> New-IscsiTargetPortal -TargetPortalAddress 169.254.2.2

Initiator-PortalAddress :
Isolatabigest : False
Isolatabigest : PS - Service -NodeAddress iqn.2015-12.com.oracleiaas:61eb5db2-7d92-454f-a479-6356127e96d3

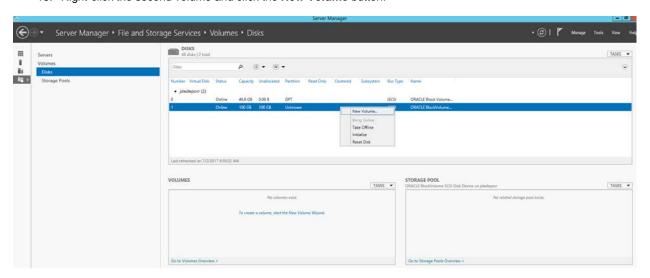
PS C:\Windows\system32> Connect-IsosiTarget -NodeAddress iqn.2015-12.com.oracleiaas:61eb5db2-7d92-454f-a479-6356127e96d3

-TargetPortalAddress : NoNE
Initiator InstanceName : NOOT\iScsiPrt\0000_0
InitiatorPortalAddress : NoNE
Initiator PortalAddress : 10.0.0.0
InitiatorPortalAddress : 0.0.0.0
InitiatorPortalAddress : 10.0.170000
InitiatorPortalAddress : 10.0.170000
Isolatabigest : True
```

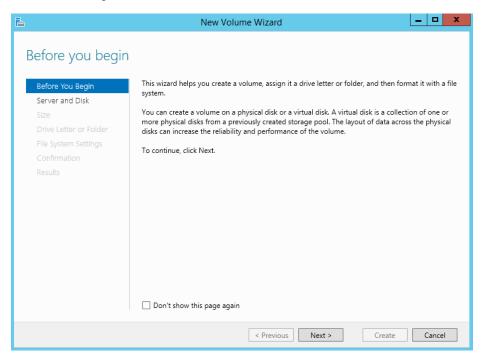
14. To assign the Block Volume Storage that you previously created for use by the Deployment Server, open the Microsoft Windows Server Manager, select the Microsoft Windows VM and navigate to File and Storage Services > Volumes > Disks.

You will see two volumes. The first volume is the boot disk with a default size of approximately 46 GB. If you followed the recommendation in this document, the second volume has a size of 128 GB.

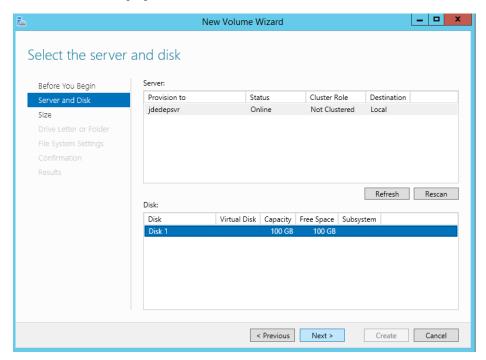
15. Right-click the second volume and click the **New Volume** button.



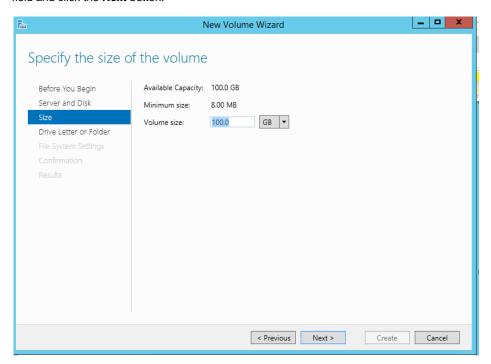
16. On Before You Begin, click the Next button.



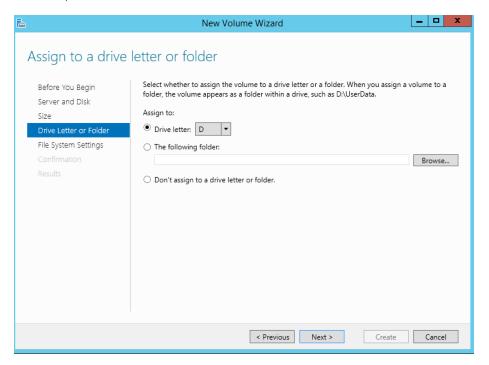
17. On Server and Disk, highlight **Disk 1** and click the **Next** button.



18. On Size, in the **Volume size** field enter a volume size that equals that shown in the **Available Capacity** field and click the **Next** button.



On Drive Letter or Folder, click the radio button for **Drive letter**, use the drop-down menu to select the **D** drive letter, and click the **Next** button.



- 20. On File System Settings, complete the following fields:
 - File system

Ensure this is set to NTFS.

• Allocation unit size

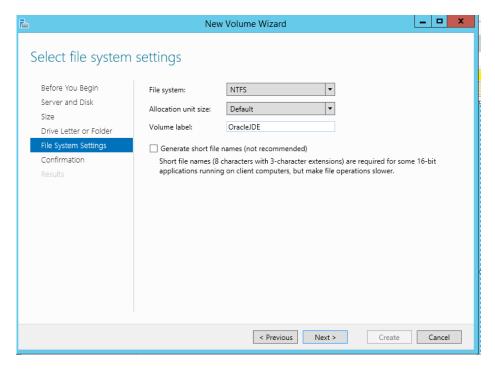
Ensure this is set to Default.

Volume label

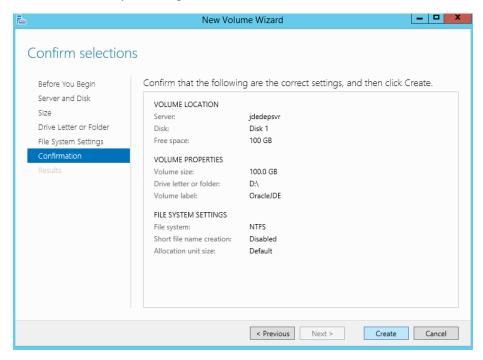
Enter a volume label.

Ensure this check box is deselected:

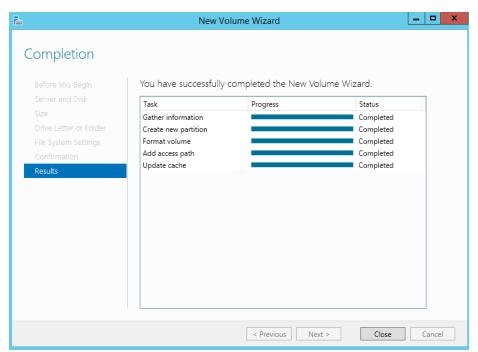
- Generate short file names (not recommended)
- 21. Click the Next button.



22. On Confirmation, verify the settings and click the **Create** button.

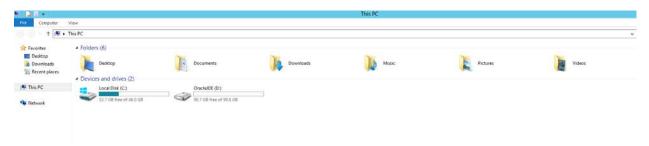


23. On Results, verify that all actions completed successfully.



24. Upon completion of the New Volume Wizard, you will able to see the Block Volume Storage that you allocated to the D: drive.

Important: Oracle recommends that you download all JD Edwards components to the D: drive because the C: drive is not likely to have adequate space.



For more information on connecting Block Volume Storage to a Microsoft Windows instance, refer to:

https://docs.us-phoenix-1.oraclecloud.com/Content/Block/Tasks/connectingtoavolume.htm

Installing the JD Edwards Deployment Server on a Microsoft Windows VM

- You should install all prerequisite software such as the Oracle 32-bit client, Microsoft Visual Studio, and a 32-bit JRE on the Microsoft Windows VM that you created. Refer to the Oracle Certifications for JD Edwards EnterpriseOne for guidelines on prerequisite software and versions.
- 2. Refer to the following guide for Deployment Server installation instructions:

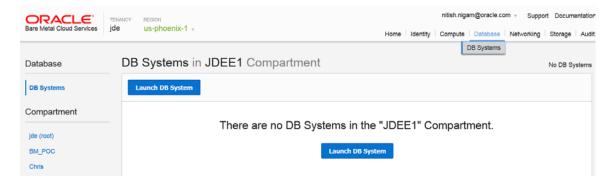
https://docs.oracle.com/cd/E61420_01/doc.92/e55724/deployment_server.htm#EOIUO00003

3. Oracle recommends that you install all prerequisite software as well as the Deployment Server on the D: drive on which you have attached sufficient Block Volume Storage.

Creating a Database Server Instance Using the Database Service (DBS)

Optionally you can choose to create your Database Server for JD Edwards EnterpriseOne as a 1-node instance using the Database Service (DBS) for BMCS. Such DBS instances include a preinstalled Oracle database that is ready to be loaded with the JD Edwards EnterpriseOne database.

 With your Compartment selected, navigate to Database > DB System and click the Launch DB System button.



2. On the Launch DB System screen, complete these fields:

DISPLAY NAME

Enter a name for your database host. For example, jdedbs.

AVAILABILITY DOMAIN

Use the drop-down menu to select the domain in which you want to create your DBS instance.

SHAPE

Use the drop-down menu to select a shape for the database instance. Oracle recommends that you use the **BMHighIO1.36** shape.

ORACLE DATABASE SOFTWARE EDITION

Use the drop-down menu to select Enterprise Edition.

CPU CORE COUNT

Use the drop-down menu to specify the number of OCPUs for this database. Oracle recommends a minimum value of **2**, although additional cores may be required to support multiple path codes.

SSH PUBLIC KEY

Copy and paste your Public SSH Key into this field.

DATA STORAGE PERCENTAGE

You can accept the default value of 80%.

VIRTUAL CLOUD NETWORK

Use the drop-down menu to select the VCN you created for your Compartment.

• CLIENT SUBNET

Use the drop-down menu to select the Subnet for your Availability Domain.

• HOSTNAME PREFIX

Specify a hostname for your DBS instance.

HOSTNAME PREFIX

Enter a hostname for your DBS instance.

HOST DOMAIN NAME

Specify a domain name for your host. For example, if the hostname prefix is **jdedbs**, and the domain name is **jdedwards**, then the fully qualified domain name of the DBS host will be **jdedbs.jdedwards**.

• DATABASE NAME

Specify the SID of the orcl database.

DATABASE VERSION

Use the drop-down menu to select the version of the Oracle database you want to use with DBS. Refer to the Oracle Certifications for JD Edwards EnterpriseOne for supported Oracle database versions.

• PDB NAME

You must specify the name of the pluggable database as **jdeorcl**.

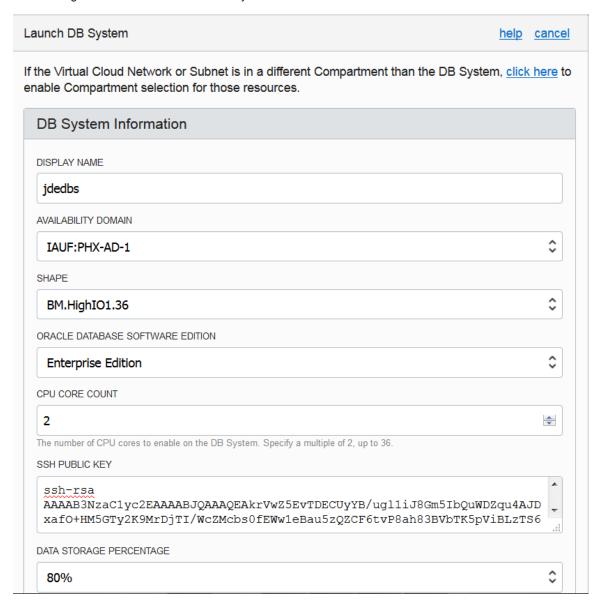
• DATABASE ADMIN PASSWORD

Enter a valid password for the SYS and SYSTEM users for the Oracle database.

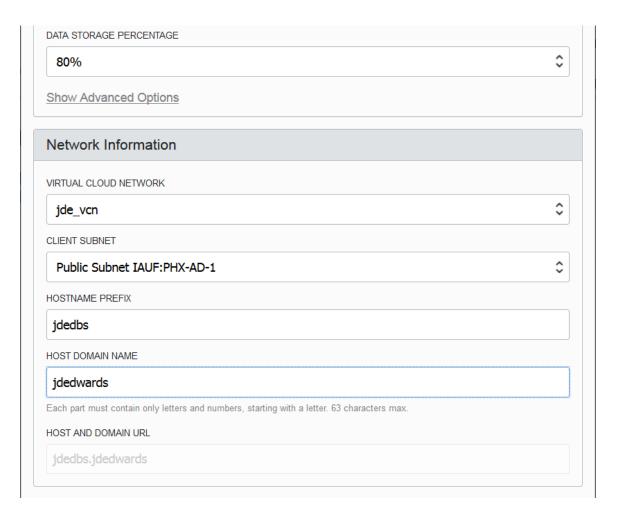
• DATABASE WORKLOAD

Accept the default selection which is ON-LINE TRANSACTION PROCESSING (OLTP).

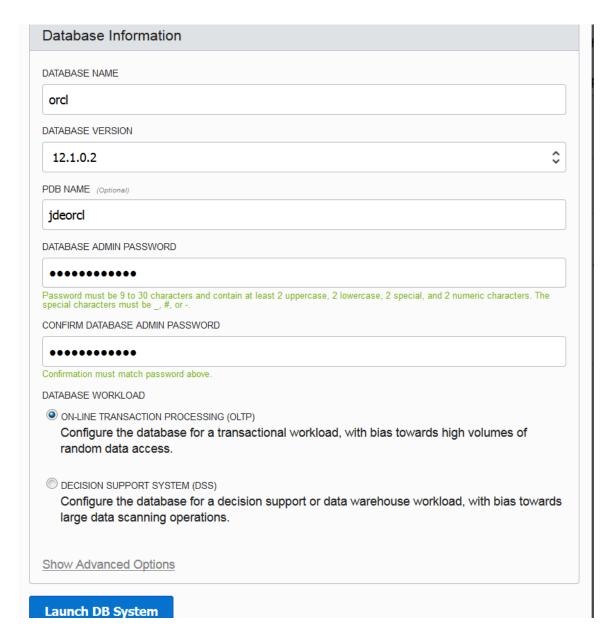
The following is screen 1 of 3 for Launch DB System details.



The following is screen 2 of 3 for Launch DB System details.



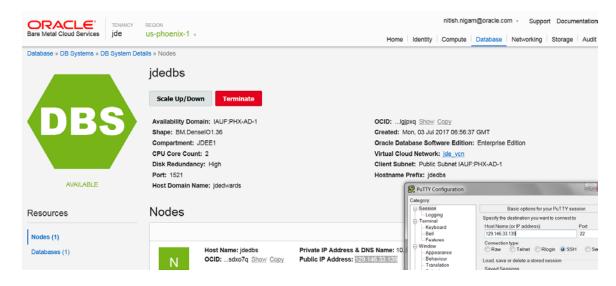
The following is screen 3 of 3 for Launch DB System details.



3. Click the Launch DB System button and wait for the DBS instance to change to the Available state.

Preparing the DBS for Installation of JD Edwards EnterpriseOne

- 1. After the DBS instance has a status of Available, you can log in to it using its public IP address.
- 2. To obtain the public IP address, navigate to Database > DB Systems > DB System Details > Node.
- 3. Enter the public IP address in PuTTY.



4. By default, the environment variables are not set for the oracle user. To add the environment variables, switch to the orcl user using this command:

```
$sudo su - oracle
```

5. Edit the bash profile using this command:

```
$vi .bash_profile
```

6. Add the following lines to the bash profile to set environment variables:

```
export ORACLE_UNQNAME=orcl_phx144
export ORACLE_HOME=/u01/app/oracle/product/12.1.0.2/dbhome_1
export ORACLE_SID=orcl
export ORACLE_BASE=/u01/app/oracle
export PATH=$PATH:$HOME/bin:$ORACLE_HOME/bin
```

- 7. Save the edited bash profile.
- 8. Run the bash profile using this command:

\$source ~/.bash_profile

```
🧬 oracle@jdedbs:~
 .bash profile
# Get the aliases and functions
if [ -f ~/.bashrc ]; then
        . ~/.bashrc
fi
# User specific environment and startup programs
PATH=$PATH:$HOME/bin
export PATH
umask 022
#Adding environment variable for oracle user for installing JDE DB
export ORACLE UNQNAME=orcl phx144
export ORACLE HOME=/u01/app/oracle/product/12.1.0.2/dbhome 1
export ORACLE SID=orcl
export ORACLE BASE=/u01/app/oracle
export PATH=$PATH:$HOME/bin:$ORACLE HOME/bin
```

The following are prerequisites for the Oracle database running in DBS:

- You must create and configure a Pluggable Database (PDB) named JDEORCL.
- You must install the Oracle database as the oracle user -- not as any other user such as opc.
- You must set the database character set to AL32UTF8.
- You must set the database national character set for the Unicode page setting to AL16UTF16.
- Database must be running with PDB (JDEORCL) set to OPEN_MODE.
- Minimum required DB processes to provision the JD Edwards EnterpriseOne Database Server is 1500 (if not already available).
- Files System IO option should be set to SETALL (if not already set).

For the detailed list of commands necessary to set up the prerequisites for the Oracle Database running in the Oracle Bare Metal Cloud Service for use with JD Edwards EnterpriseOne, refer to the section entitled: **Prerequisites for the Oracle Database on the Oracle Compute Cloud Service** in this document:

http://www.oracle.com/webfolder/technetwork/tutorials/obe/cloud/compute-iaas/JDE OneClick Prov/Preparing/preparing for%20one click deployment 92.html

Install all prerequisite packages on the DBS Linux machine as described in a previous section of this document entitled: **Setup on JD Edwards EnterpriseOne Linux-based Servers**.

After the PDB running is DBS is ready, refer to the following guide for instructions on installing the JD Edwards Database Server using the OUI Platform Pack installer:

http://docs.oracle.com/cd/E61420_01/doc.92/e55724/platform_pack.htm#EOIUO00004

For more information on DBS, refer to:

https://docs.us-phoenix-1.oraclecloud.com/Content/Database/Concepts/overview.htm



Oracle Corporation, World Headquarters

500 Oracle Parkway

Redwood Shores, CA 94065, USA

Worldwide Inquiries

Phone: +1.650.506.7000 Fax: +1.650.506.7200

CONNECT WITH US



blogs.oracle.com/oracle



facebook.com/oracle



twitter.com/oracle



oracle.com

Integrated Cloud Applications & Platform Services

Copyright © 2017, Oracle and/or its affiliates. All rights reserved. This document is provided for information purposes only, and the contents hereof are subject to change without notice. This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document, and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group. 0817

Traditional Platform Pack Installation of JD Edwards EnterpriseOne on Oracle Bare Metal Cloud Services August 2017

