Oracle VM Virtual Appliance for Oracle E-Business Suite Deployment Guide, Release 12.2.12 (Doc ID 2933812.1)

This document will guide you through the deployment of the Oracle VM virtual appliance for Oracle E-Business Suite Release 12.2.12 Vision Demo on a single node. The virtual appliance used for this deployment is called "Vision Single Node" that can be imported into Oracle VM Manager to deploy Oracle E-Business Suite Linux 64-bit environments on compatible server-class machines running Oracle VM Server. Alternatively, it can be imported into Oracle VM VirtualBox to create a virtual machine on a desktop or laptop computer.

Note: Alternatively, if you have an Oracle Cloud Infrastructure (OCI) account and wish to install a single-node Oracle E-Business Suite 12.2.12 Vision demonstration instance on OCI instead, follow the instructions in My Oracle Support Knowledge Document 2764690.1, *Provision a New Oracle E-Business Suite Installation on a Single Node on Oracle Cloud Infrastructure*.

This document is not a substitute for the documentation provided for Oracle VM Server, Oracle VM Manager, or Oracle VM VirtualBox.

The most current version of this document can be obtained in My Oracle Support Knowledge Document 2933812.1. There is a change record at the end of this document.

In This Document

This document contains the following sections:

Section 1: Overview of the VM Virtual Appliance for Oracle E-Business Suite 12.2.12 Deployment

The virtual appliance used for this deployment creates a unified virtual machine with Oracle E-Business Suite 12.2.12 database and applications. It contains the following embedded technology components:

- Operating System

Component	Version	YUM Updated Level
Oracle Linux 7.9	7.9 64-bit	April 24, 2023

- Technology Component Versions

Component	Version
RDBMS Oracle Home	Oracle Database 19c (19.18 RU)
Application Code Level	◦ Oracle E-Business Suite 12.2.12 Release Update Pack (Document 2876726.1) ◦ R12.AD.C.Delta.14 and R12.TXK.C.Delta.14 (Document 1617461.1) ◦ EBS System Schema Migration - Consolidated patch (Document 2774309.1) ◦ EBS System Schema Migration - Completion patch (Document 2755875.1) ◦ Technology consolidated patches for database and middle tier techstack components (Document 1594274.1 and Document 287 ◦ Oracle E-Business Suite Data Removal Tool (DRT) patches (Document 2388237.1)
Oracle Forms and Reports	10.1.2.3
Oracle WebLogic Server	10.3.6.0.230117
Web Tier	11.1.1.9
JDK	1.7.0_371

Component	Version
JRE [1]	Oracle Java Runtime Environment (JRE) 8 Update 361
Critical Patch Update (CPU)	◦ April 2023 for Oracle E-Business Suite (Document 2933342.1) ◦ January 2023 (Document 2916871.1) for Oracle Database Release 19c, Oracle Fusion Middleware, Java, JRE, etc.

[1] Java Web Start is enabled by default on this appliance. Refer to My Oracle Support Knowledge Document 2188898.1, *Using Java Web Start with Oracle E-Business Suite*, for information about the use of Java Web Start with Oracle E-Business Suite.

Available VM Virtual Appliance

The VM virtual appliance for this deployment contains the following information:

VM Short Name	OVA File Name	Download Size
Vision Single Node	**Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova**	**72 GB**

Obtaining the VM Virtual Appliance

The Oracle E-Business Suite Release 12.2.12 VM Virtual Appliance is available for download through the Oracle Software Delivery Cloud (https://edelivery.oracle.com/) page. See: Appendix A: Downloading, Reconstructing, and Staging the Downloaded Appliance.

Deployment Options

Once you unzip the downloaded files and concatenate them to create the Oracle VM virtual appliance, you can have the following deployment options:

- Import the virtual appliance to Oracle VM Manager

  See: Section 2: Deploying the Oracle E-Business Suite VM Virtual Appliance on Oracle VM Server.

- Import the virtual appliance to Oracle VM VirtualBox

  See: Section 3: Deploying the Oracle E-Business Suite VM Virtual Appliance on Oracle VM VirtualBox.

Section 2: Deploying the Oracle E-Business Suite VM Virtual Appliance on Oracle VM Server

This section contains the following topics:

Section 2.1: Preparing to Deploy

This section explains how to deploy the Oracle VM virtual appliance for Oracle E-Business Suite 12.2.12 on the Oracle VM Manager. It includes the following topics:

Section 2.1.1: Understanding Oracle VM and the Oracle E-Business Suite Deployment

An Oracle VM provides a fully equipped virtualization platform. An Oracle VM virtual appliance enables you to deploy operating systems and application software such as Oracle E-Business Suite within an Oracle supported virtualization environment.

An Oracle VM virtual appliance for Oracle E-Business Suite facilitates rapid deployment of ready-to-run Oracle E-Business Suite on Oracle Linux virtual machine for demonstration. The appliance delivers the full software stack, including the operating system, required technology components, and Oracle E-Business Suite itself. Furthermore, the appliance consists of a configuration file and one or more disk images. The disk images contain the operating system and software application upon which the appliance has been built.

Oracle E-Business Suite Release 12.2.12 deployment is on a single node by utilizing the Oracle E-Business Suite Release 12.2.12 Single Node Vision appliance.

Before deploying the Oracle E-Business Suite appliance, you must install Oracle VM Server and Oracle VM Manager. See Section 1.4: Reviewing the Oracle VM Setup. We recommend you install the latest version of the Oracle VM server and VM manager.

The deployment requires users with the following roles:

- Oracle VM Administrator

  The Oracle VM Administrator is responsible for management of the Oracle VM server pool and user accounts, including the user accounts for the Oracle E-Business Suite domain and installation administration. The Oracle VM Administrator is authorized to create virtual machines and assign hardware resources to a virtual machine. The Oracle VM administrator should have root access on the Oracle VM Server machine.

- E-Business Suite Domain and Installation Administrators

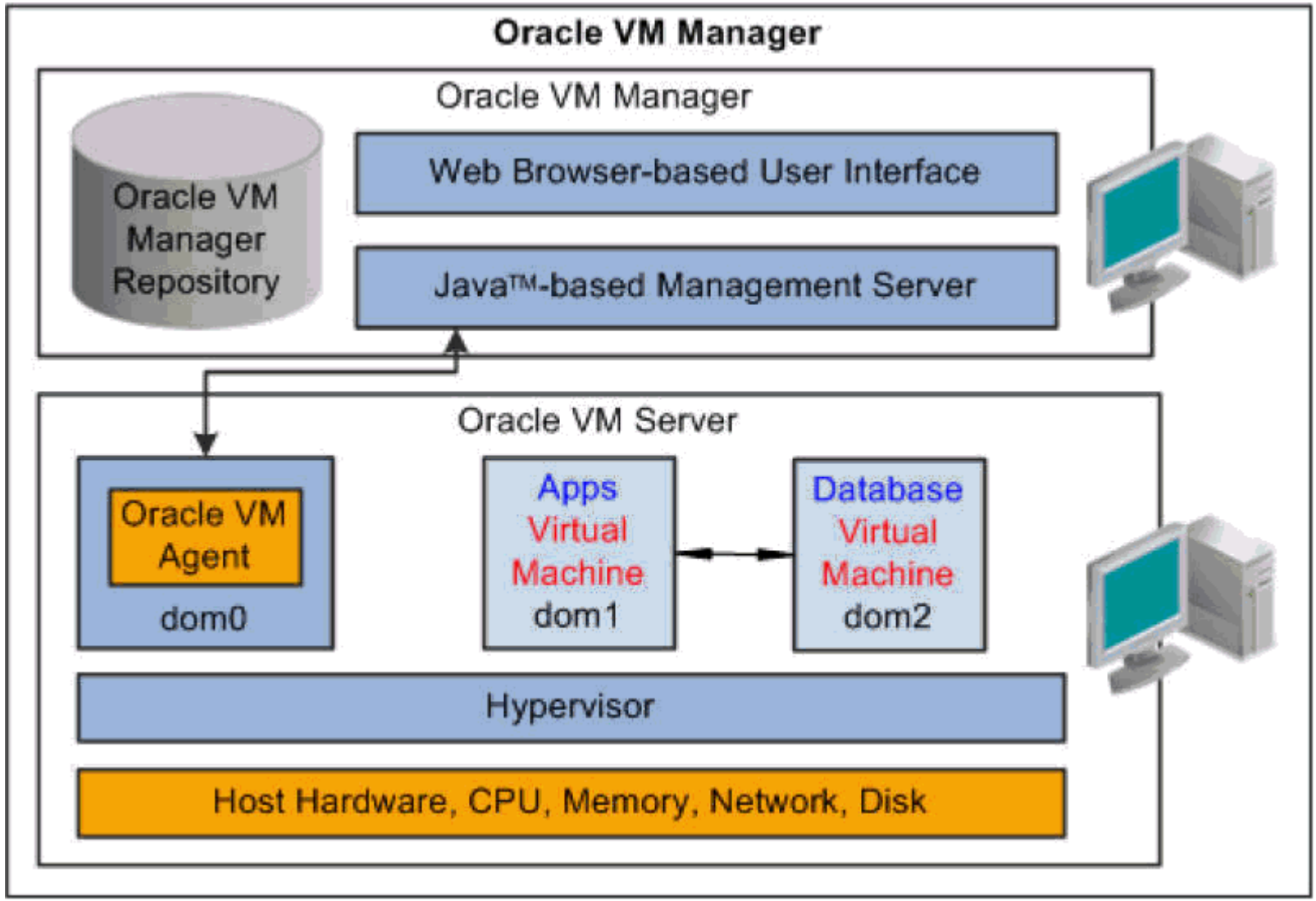
  The users managing the Oracle E-Business Suite environment should be familiar with Oracle E-Business Suite software administration. The users can be local to the virtual machine or domain users. These users only have access to the resources assigned by the Oracle VM Administrator. While these are listed as separate roles, both sets of skills are needed to complete the deployment process in very close coordination.

Section 2.1.2: Planning the Oracle E-Business Suite Appliance Deployment

Deployment Architecture

The following diagram shows the Oracle VM architecture with deployed Oracle E-Business Suite appliances. In this example, both Oracle E-Business Suite appliances are deployed in a single server pool on a single Oracle VM server, but other server pool configurations are possible. A server pool is an autonomous region that contains one or more Oracle VM Servers.

Sample Oracle VM Architecture with Deployed Oracle E-Business Suite Appliances



The components represented in the above diagram are described below:

- Oracle VM Manager

  The Oracle VM Manager is a web application that provides the user interface to manage Oracle VM Server, virtual machines, and resources.

- Oracle VM Server

The Oracle VM Server is a self-contained virtualization environment designed to provide a lightweight, secure, server-based platform to run virtual machines. Oracle VM Server is based on an updated version of the underlying Xen hypervisor technology, and includes Oracle VM Agent.

- Oracle VM Agent

  The Oracle VM Agent is installed with Oracle VM Server. It communicates with Oracle VM Manager to manage virtual machines.

- dom0

  This is an abbreviation for domain zero, which is the management domain with privileged access.

- dom*U*

  Each dom*U* (dom1, dom2) is an unprivileged Oracle VM domain with no direct access to the hardware or device drivers. Each dom*U* is started by Oracle VM Server (which itself is in dom0). In this example, each domain holds a single Oracle E-Business Suite virtual machine.

Before deploying the Oracle E-Business Suite appliances, you need to decide upon the deployment architecture. In general, you can have an option to place the database appliance on one server (and server pool) and the application tier appliance on another, or you can distribute the appliances to create virtual machines on different physical servers, and place them in the same server pool. In this document, both Oracle E-Business Suite appliances are deployed in a single server pool on a single Oracle VM server. For guidance on designing your system, refer to the Managing Server Pools chapter, *Oracle VM User's Guide* available in the Oracle VM Server and Oracle VM Manager Documentation Library.

Note that it is possible to combine a deployed Oracle E-Business Suite appliance with a conventional installation. For example, you can deploy an application tier appliance and connect it to a traditional, non-virtual database instance.

The environment set up by the deployment of the Oracle E-Business Suite Oracle VM virtual appliances can be used as a starting point that can subsequently be enhanced and tuned to fit the requirements of the target system.

Sizing Requirements

When planning the deployment, consider the following minimum hardware requirements shown in the table below:

Virtual Appliance	Size of Virtual Disk (in GB)	Initial Disk Space Used on File System (in GB)	Memory (in GB)	CPU	Domain Type
Oracle E-Business Suite Release 12.2.12 Single Node Vision Install	400	302	16	1	HVM

Note: This is the minimum required configuration for the initial installation. The memory, disk, and CPU allocation can be increased using the Oracle VM Manager interface for patching and large scale hosting. See: Appendix C: Prerequisites for Applying Oracle E-Business Suite Patches.

For more information on Oracle E-Business Suite release 12.2 sizing, refer to the Database and Application Tier Sizing Guidelines section, Getting Started chapter, *Oracle E-Business Suite Installation Guide: Using Rapid Install*.

For more information on tuning the system for better performance, refer to *Database Initialization Parameters for Oracle E-Business Suite Release 12*, My Oracle Support Knowledge Document 396009.1.

You also need to reserve disk space for downloading and staging the appliance. You can stage the appliance on a file or web server, and use Oracle Virtual Machine Manager to import the appliance.

For information on downloading the appliance, refer to Appendix A: Downloading, Reconstructing, and Staging the Downloaded Appliance. For information on importing the appliance, refer to Section 2.2: Importing the Oracle E-Business Suite Appliance.

Additional Requirements

- In addition to the Oracle VM components discussed above, a console utility is used to access and control the virtual machines.

  Refer to the Oracle VM documentation for information on downloading a plug-in, or use a VNC client of your own choosing. Refer to Starting a virtual machine and connecting to the console, *Oracle VM Manager Getting Started Guide* (or Connecting to a Virtual Machine, *Oracle VM User's Guide*) available in the Oracle VM Server and Oracle VM Manager Documentation Library.

- After setting up the virtual machines, you will need to use a secure shell (SSH) client to log in to the virtual machines.

- To avoid potential conflicts, the Oracle VM Administrator should keep careful record of the host names and IP addresses associated with the virtual machines.

Section 2.1.3: Reviewing the Oracle VM Setup

The Oracle VM Administrator must have completed the following tasks before you begin the Oracle VM for Oracle E-Business Suite appliance deployment:

- Downloaded the Oracle VM Server and Oracle VM Manager software from Oracle Software Delivery Cloud (https://edelivery.oracle.com/).

  Note: Oracle E-Business Suite is certified with all versions of Oracle VM Server. The use of Oracle VM virtual appliance requires Oracle VM Server 3.4.6 or later. Oracle recommends that you install the latest version available on the Oracle Software Delivery Cloud.

- Installed Oracle VM Server and Oracle VM Manager software.

  Refer to the *Oracle VM Installation and Upgrade Guide*.

- Set up a server pool.

  Refer to the *Oracle VM Manager Getting Started Guide* (or the *Oracle VM User's Guide*).

- Set up a server.

  Refer to the *Oracle VM Manager Getting Started Guide* (or the *Oracle VM User's Guide*).

- Recorded, and if necessary, communicated information such as host names, IP addresses, and other access information to the user who will deploy the appliances.

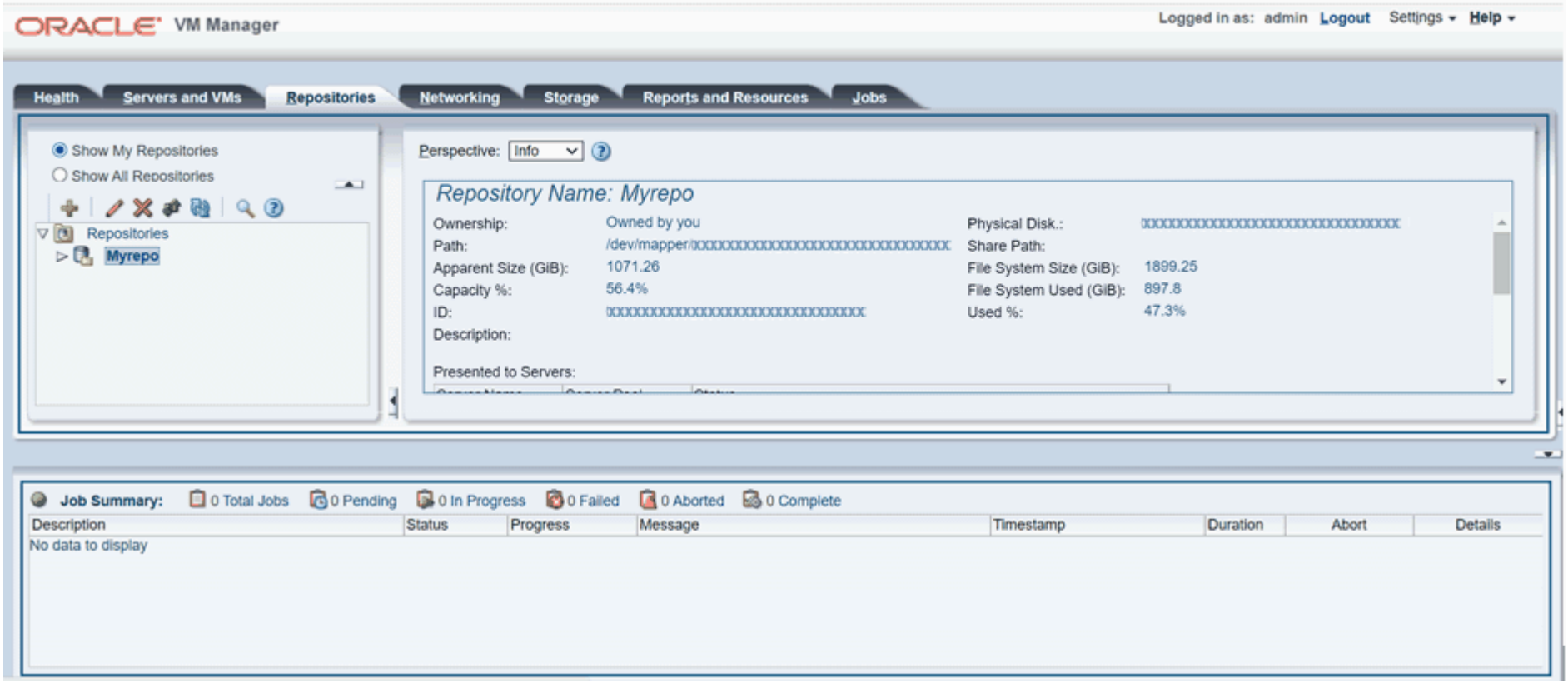
The *Oracle VM Installation and Upgrade Guide* and the *Oracle VM Manager Getting Started Guide* (or the *Oracle VM User's Guide*) are contained in the Oracle VM Server and Oracle VM Manager Documentation Library.

Section 2.2: Importing the Oracle E-Business Suite Appliance Using Oracle VM Manager

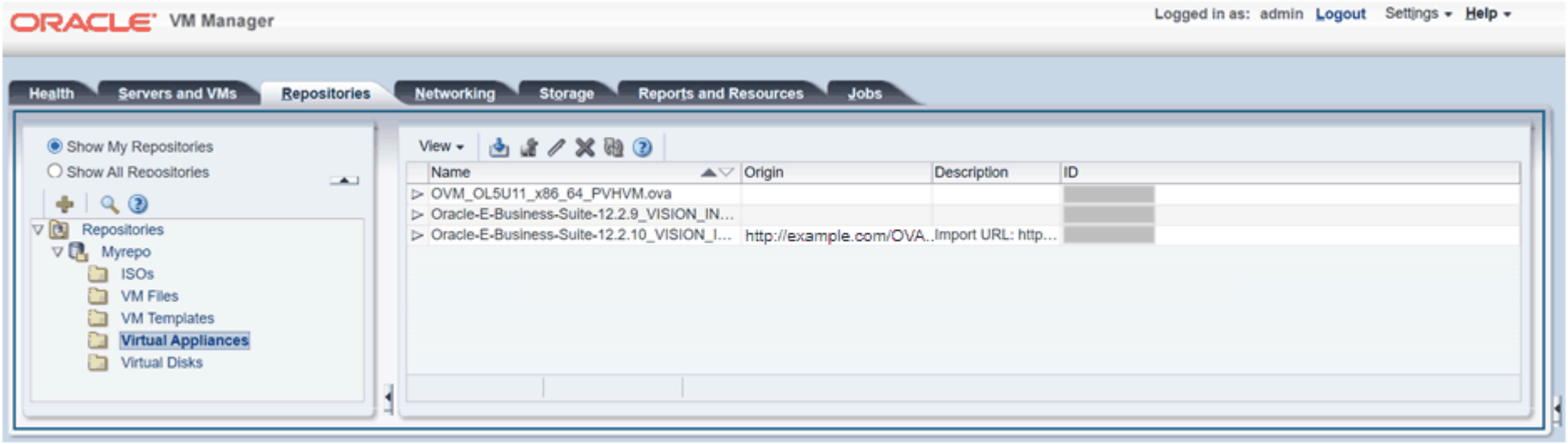
There are several methods of importing virtual machine appliances. This section guides you through one such method. Refer to the Importing a Virtual Machine Template section, *Oracle VM Manager Getting Started Guide* (or the *Oracle VM User's Guide*) for more information.

Perform the following tasks to import the appliance directly into the Oracle VM Manager repository:

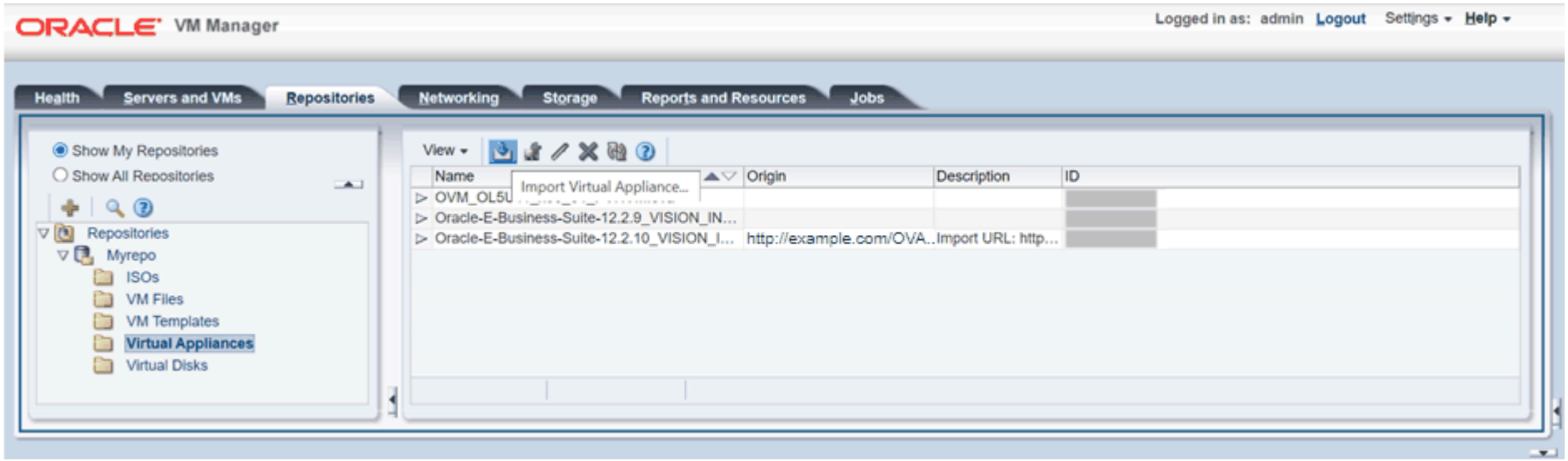
1. Log in to the Oracle VM Manager with the default user name "`admin`".
2. Select the Repositories tab and select your repository to which the appliance needs to be downloaded.



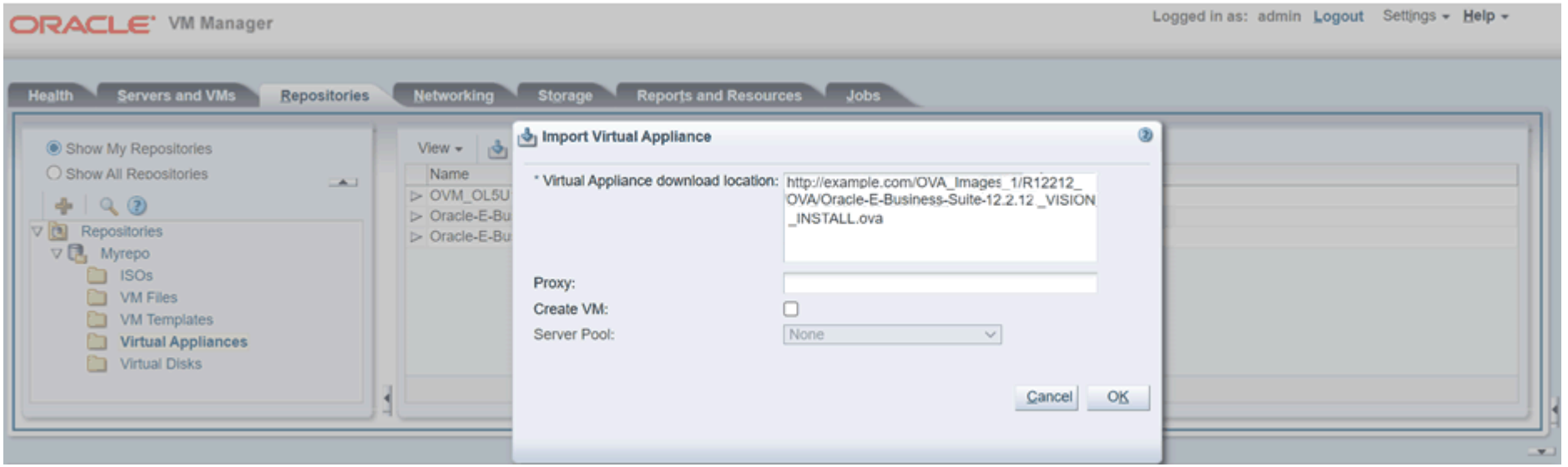
3. Select the **Virtual Appliances** node in the left pane to import the virtual machine appliance into your Oracle VM Manager repository.



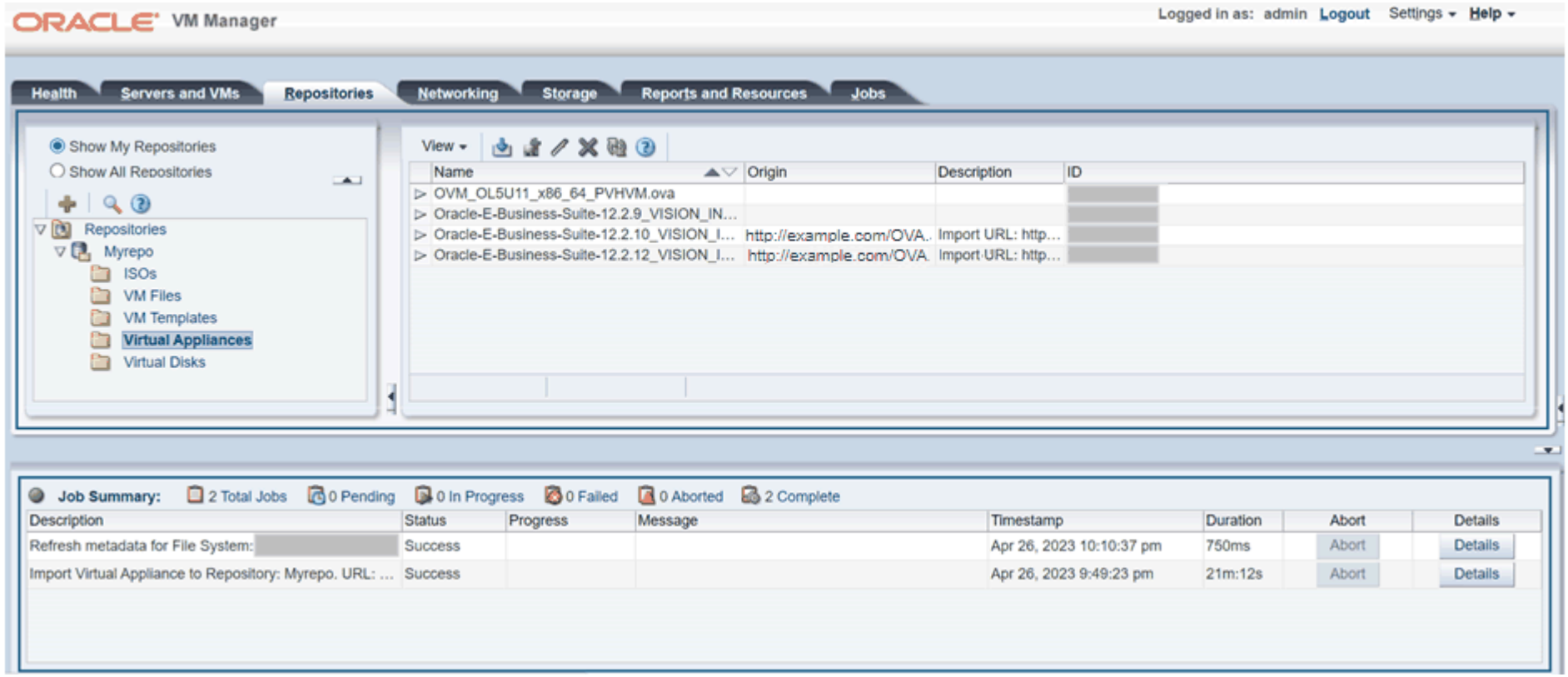
4. Click the **Import Virtual Appliance** icon to import the virtual appliance.



5. For the Virtual Appliance download location, provide stage location of the appliance on a file system or web server.



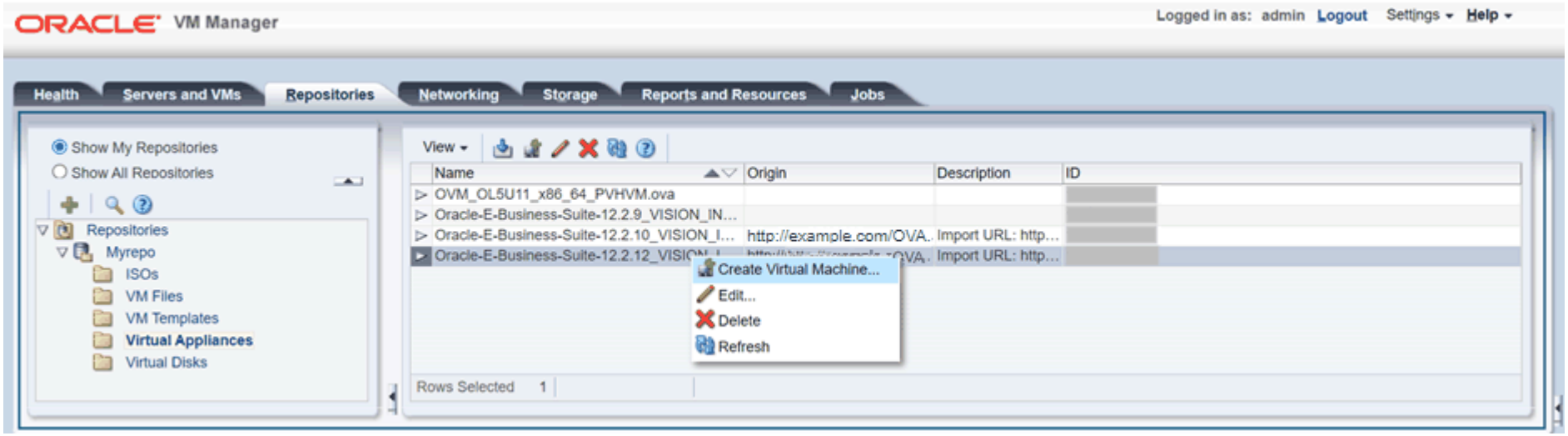
6. Once your import is successful, you will see the status as "Success" in the Job Summary region.



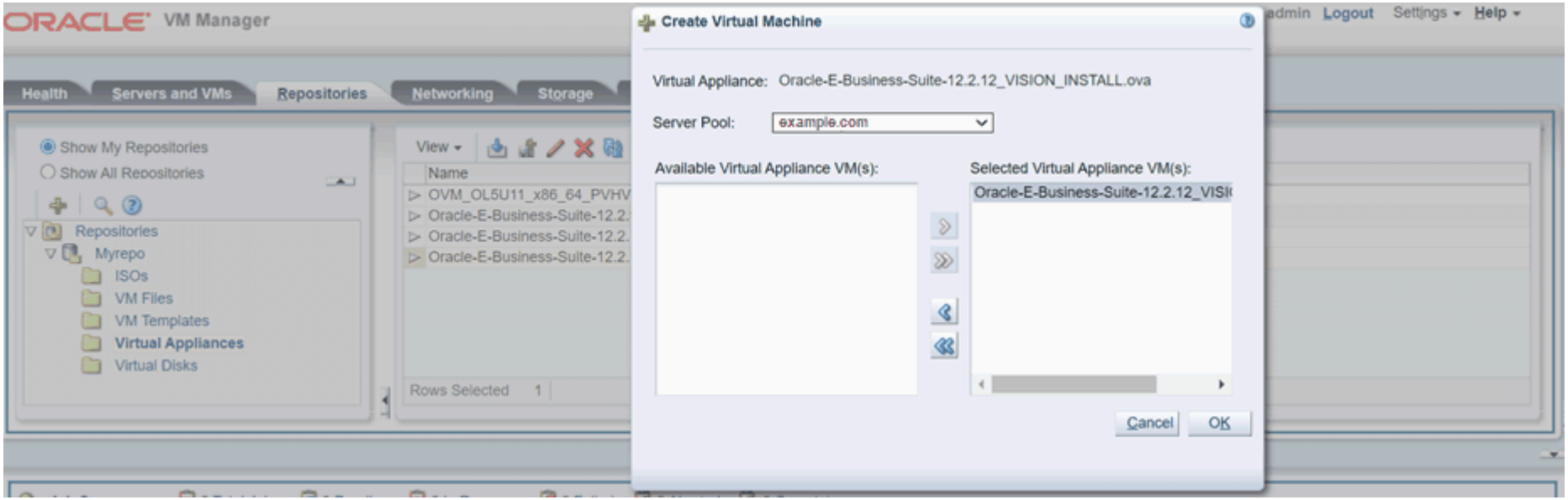
Section 2.3: Creating the Oracle E-Business Suite Virtual Machine

After successfully importing the virtual appliance `Oracle E-Business-Suite-12.2.12_VISION_INSTALL.ova` to the repository, you can perform the following steps to create the virtual machine for Oracle E-Business Suite:

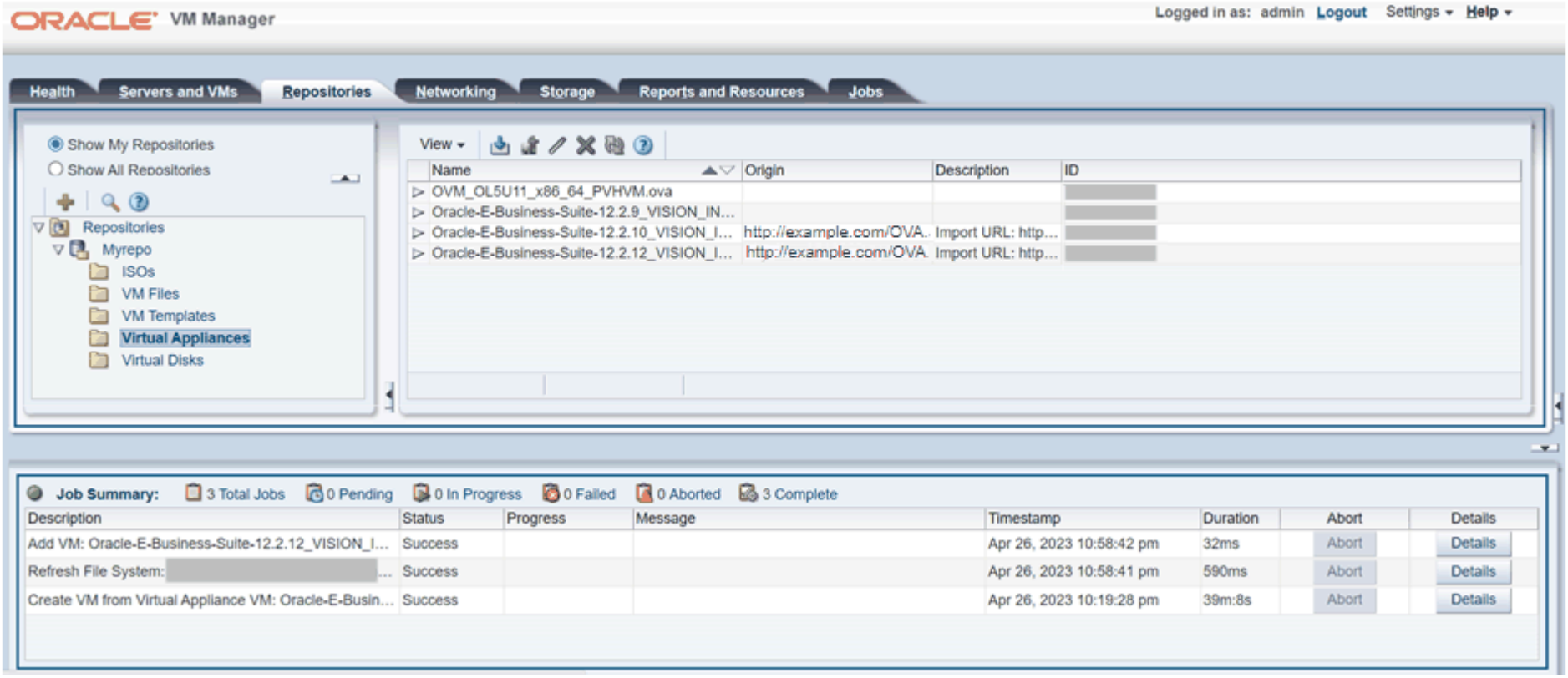
1. In the Oracle VM Manager, select the Virtual Appliance image that you imported earlier in your repository. Right click `Oracle E-Business-Suite-12.2.12_VISION_INSTALL.ova` and click **Create Virtual Machine**.



2. In the Create Virtual Machine dialog box, select the server pool from the drop-down list. Click **OK**.



3. The Job Summary would display "Success" status upon the completion of the virtual machine creation.



Section 2.4: Starting the Oracle E-Business Suite Virtual Machine

Log in to the virtual machine via the administration console to verify that it was successfully created and is accessible. At the end of the first VM boot, you will get a console screen. Log in as the **root** user and follow the configuration prompts.

> **Note:** The virtual machines use a fully virtualized installation. This virtual machine is configured with a virtual host name **apps.example.com**. The virtual machine by default use dynamic host configuration protocol for the network. The VM on boot will automatically capture an IP address from the DHCP server available on your network and assign it to the VM. This is the default configuration. If there is no DHCP server available on your network, you will be prompted to enter a static IP address for your VM. If you bypass this screen, run the script (`configstatic.sh`) provided in the `/u01/install/scripts` directory.
>
> Be aware that if you supply incorrect network information in response to these prompts, the virtual machine will not function and you will need to either re-create the virtual machine or perform a machine configuration cleanup.

Starting the Oracle E-Business Suite Release 12.2.12 Vision Demo Virtual Machine

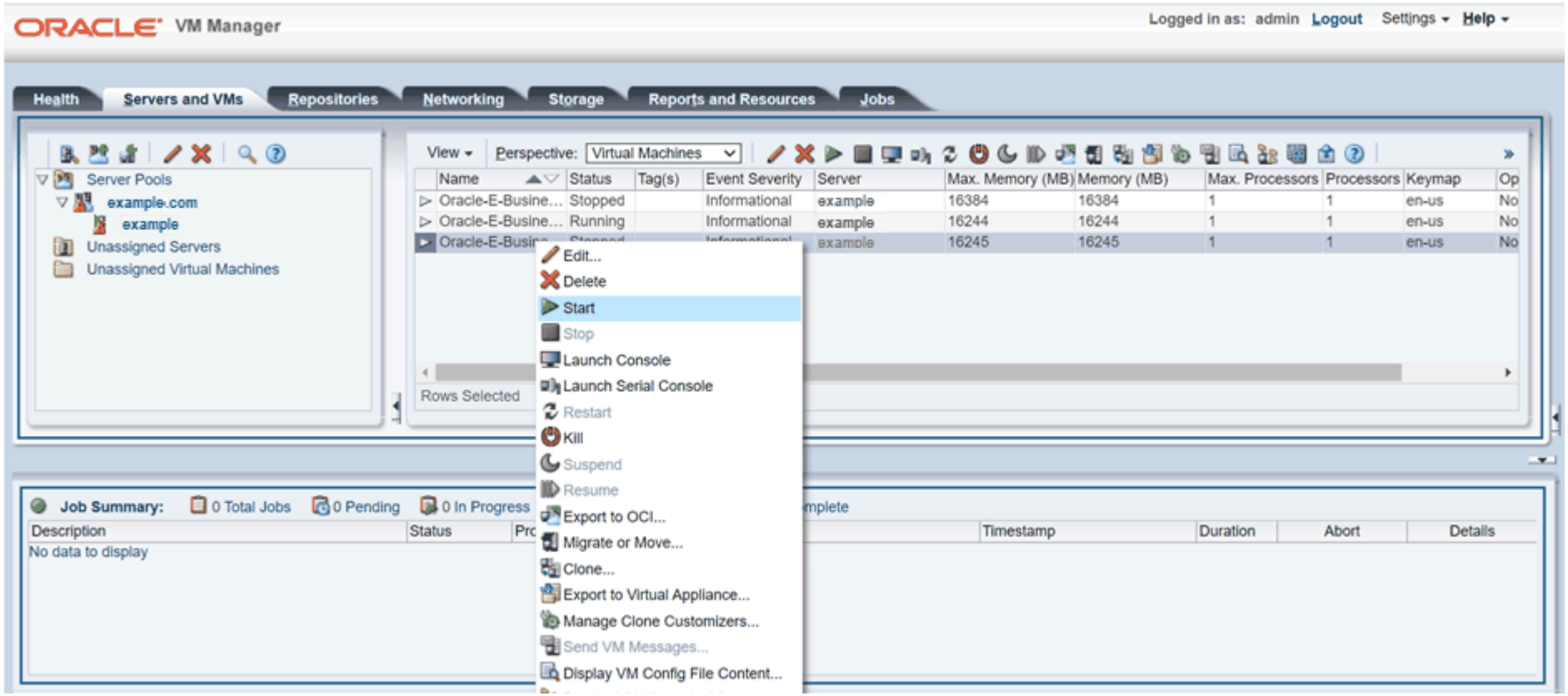
Starting a virtual machine is analogous to starting a computer by pressing the Power On button. Ensure that the virtual machine is powered off before you start it.

> **Note:** Ensure that the database server is running before starting the Oracle E-Business Suite application processes in the virtual machine.

Perform the following tasks to start and initialize the Oracle E-Business Suite database virtual machine:

1. In the Oracle VM Manager, click the "Servers and VMs" tab. Select the virtual machine you want to start and click the green button (or right click and select **Start** from the menu) as shown in the figure below:

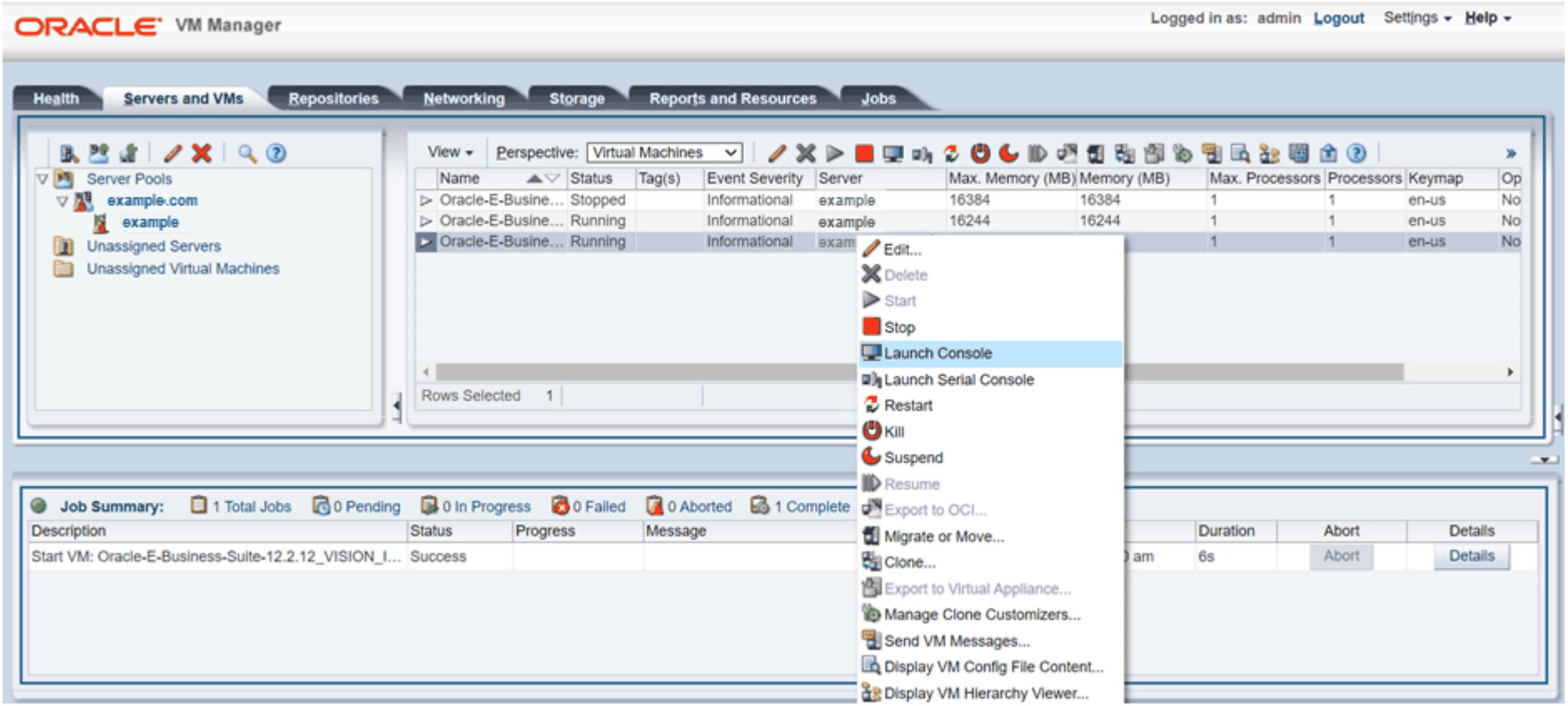
   > **Note:** If starting virtual machine fails due to network issues, update an appropriate IP address in the Networking tab (or right click the virtual machine, then select **Edit**, and then **Networks** from the menu).



Once the virtual machine is started, the status will change to "Running".

2. Launch a virtual machine's console to access the virtual machine directly.

   In the "Servers and VMs" tab, select the virtual machine that you have started in the previous step and ensure it is in "Running" state. Right click to select **Launch Console** from the menu.



   A new browser window or tab appears.

After starting the VM, you need to perform certain tasks before the first use of the Oracle E-Business Suite Vision instance. These tasks include enabling Oracle E-Business Suite users who are typically used for demonstrating the Oracle E-Business Suite Vision environment, starting the database and application tier processes, and setting passwords for required users. See: Section 4: Using the Virtual Machine for the First Boot for details.

Section 3: Deploying the Oracle E-Business Suite 12.2.12 VM Virtual Appliance on Oracle VM VirtualBox

This section contains the following topics:

- Section 3.1: Reviewing Hardware Requirements
- Section 3.2: Reviewing Software Requirements

Section 3.1: Reviewing Hardware Requirements

This section describes the hardware requirements for deploying the Oracle VM VirtualBox appliance for Oracle E-Business Suite. Keep in mind that individual performance varies depending upon the specific hardware, CPU speed, disk type and speed, and disk fragmentation in your configuration.

Note: This documentation uses "virtual appliance" or "image" to refer to the archive that is imported into the VirtualBox Manager. The term "virtual machine (VM)" is used in this documentation to refer to the environment that the VirtualBox creates from the virtual appliance.

The requirements listed below apply to the machine used to host the Oracle VM VirtualBox appliance used with Oracle E-Business Suite.

- Host Computer

  You need a physical host computer to install VirtualBox and deploy the Oracle E-Business Suite. Refer to Chapter 1 First Steps, *Oracle VM VirtualBox User Manual* for more information on the host computer requirements.

  Oracle E-Business Suite VirtualBox appliance is 64-bit. The VirtualBox instance that runs the appliance cannot be run in another virtual machine.

- Host Operating System

  The host operating system must be one that is supported to run VirtualBox. Refer to Chapter 1 First Steps, *Oracle VM VirtualBox User Manual* for more information on the host operating system requirements.

- CPU Capabilities

  The host processor must be a 64-bit processor with hardware virtualization capabilities.

  Most new CPUs from Intel and AMD contain the required virtualization extensions. These virtualization extensions may have to be enabled in the BIOS of the host. If it is necessary to enable virtualization extensions, you must consult the documentation provided with your computer for information on accessing the BIOS on your machine.

- RAM (memory) and Disk Space

  The minimum hardware requirements for hosting the Oracle E-Business Suite VirtualBox appliance are:

VirtualBox Appliance	CPU	RAM	Nominal Disk Size	Initial Disk Size
Oracle E-Business Suite Single Node Vision Appliance	1	16 GB	400 GB	314 GB

> **Note:** This is the minimum required configuration for the initial installation. The memory and CPU allocation can be increased using the Oracle VM VirtualBox Manager interface. See: Appendix C: Prerequisites for Applying Oracle E-Business Suite Patches.
>
> For more information on Oracle E-Business Suite release 12.2 sizing, refer to the Database and Application Tier Sizing Guidelines section, Getting Started chapter, *Oracle E-Business Suite Installation Guide: Using Rapid Install*.
>
> For more information on tuning the system for better performance, refer to My Oracle Support Knowledge Document 396009.1, *Database Initialization Parameters for Oracle E-Business Suite Release 12*.

Please note that the memory used by the VirtualBox appliance will not be available to the host operating system while the appliance is running. The available RAM refers to memory not used by other processes on the host operating system.

The sizing information given above is the minimum memory required. You can adjust the memory sizing from the Oracle VM VirtualBox Manager user interface based on your hardware capabilities.

> **Note:** VirtualBox supports the ability to take snapshots of a running appliance and use them to return to a previous state if your virtual appliance becomes corrupted in any way. You should plan for the space needed for snapshots when allocating storage for your virtual appliance.
>
> For more information about snapshots, refer to the Snapshots section, Chapter 1 First Steps, *Oracle VM VirtualBox User Manual*.

- Network

  The default installation of the Oracle E-Business Suite VirtualBox appliance is configured for "Bridged" network configuration. You can change the default setting to other networking types from the VirtualBox machine manager.

  If you wish the VM to join the network, ensure that you are able to configure the network stack within the VM in such a way that it will be able to join the local area network (LAN) on which it will reside. Refer to Chapter 6 Virtual Networking, *Oracle VM VirtualBox User Manual* for more information on various types of networking supported by the VirtualBox software.

  > **Note:** Oracle E-Business Suite uses a fully virtualized installation and virtual host name `apps.example.com`. The virtual machine is by default configured to use a dynamic host configuration protocol address.

Section 3.2: Reviewing Software Requirements

Before deploying the Oracle VM VirtualBox appliance for Oracle E-Business Suite, you must install Oracle VM VirtualBox.

For deploying Oracle E-Business Suite Release 12.2.12 Vision Demo Virtual Machine, you must be on Oracle VM VirtualBox version 6.1.40 or later. It is recommended that you download the latest version of VirtualBox from the following page: https://www.oracle.com/virtualization/technologies/vm/downloads/virtualbox-downloads.html

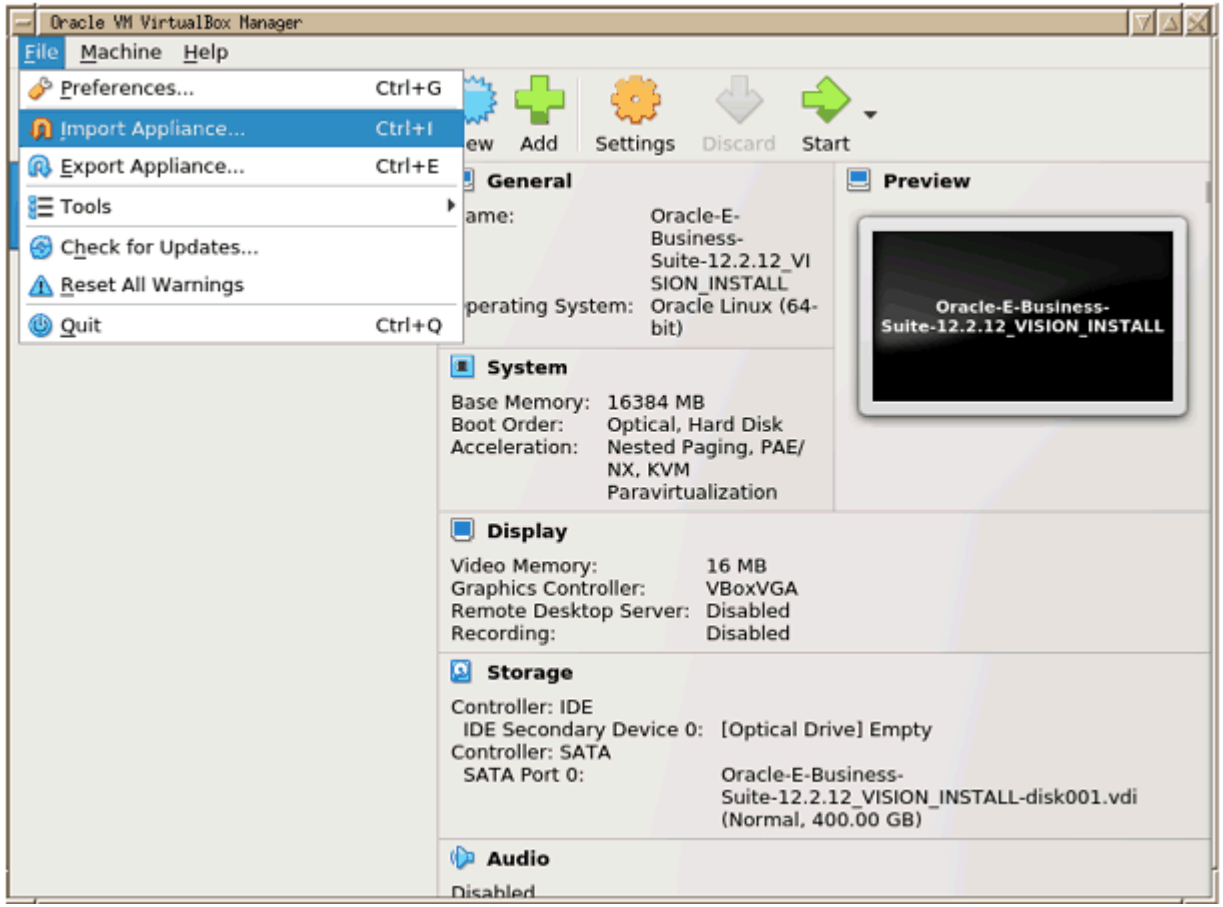
Section 3.3: Making the VirtualBox Appliance Accessible to the Host Computer

The VirtualBox appliance image file needs to be accessible on the host computer that runs the Oracle VirtualBox VM Manager. It can be hosted on a shared network drive or physically copied to the local disk of the machine running the VirtualBox Manager.

Section 3.4: Importing the VirtualBox Appliance Using Oracle VM VirtualBox Manager

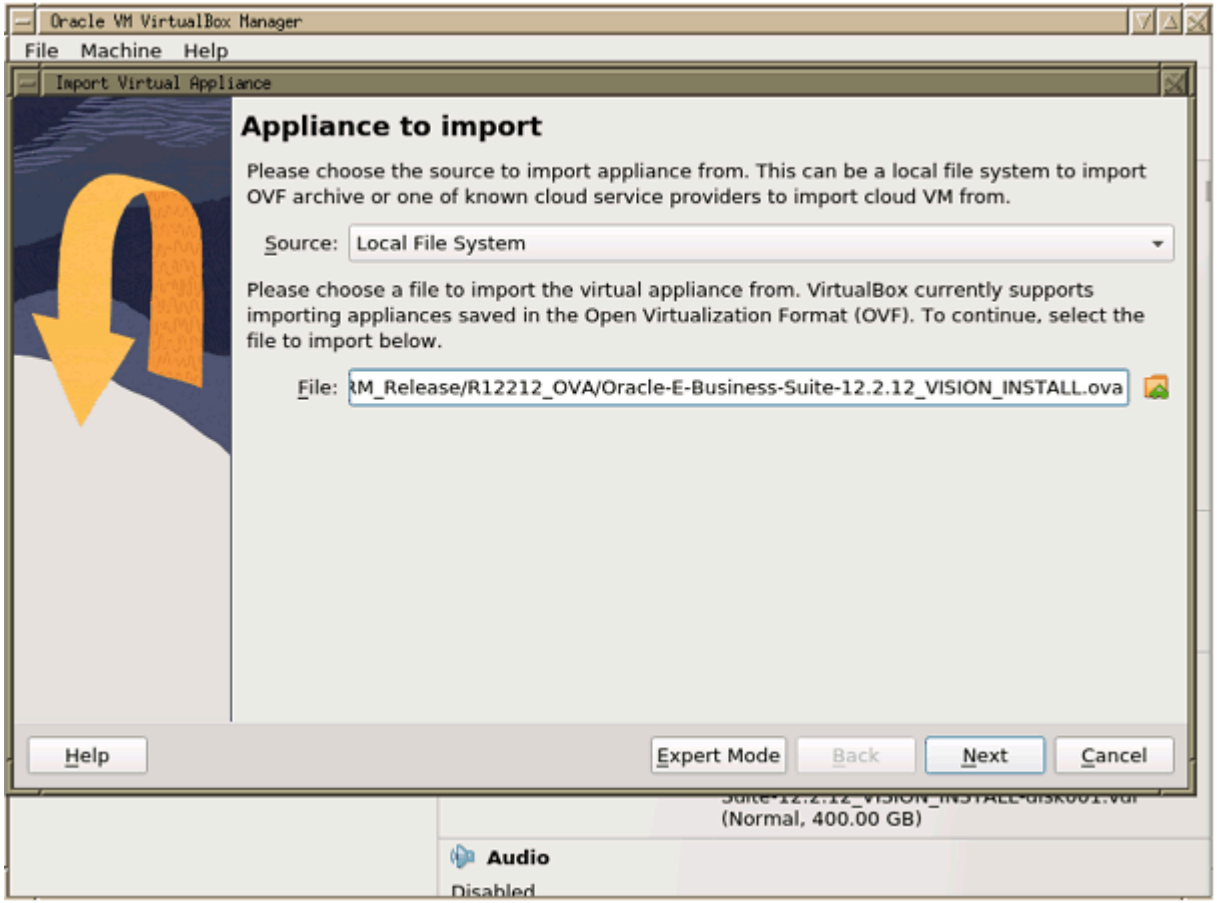
Perform the following tasks to import the VirtualBox appliance:

1. In the Oracle VM VirtualBox Manager, select **File** > **Import Appliance**.



2. The Import Virtual Appliance wizard is displayed.

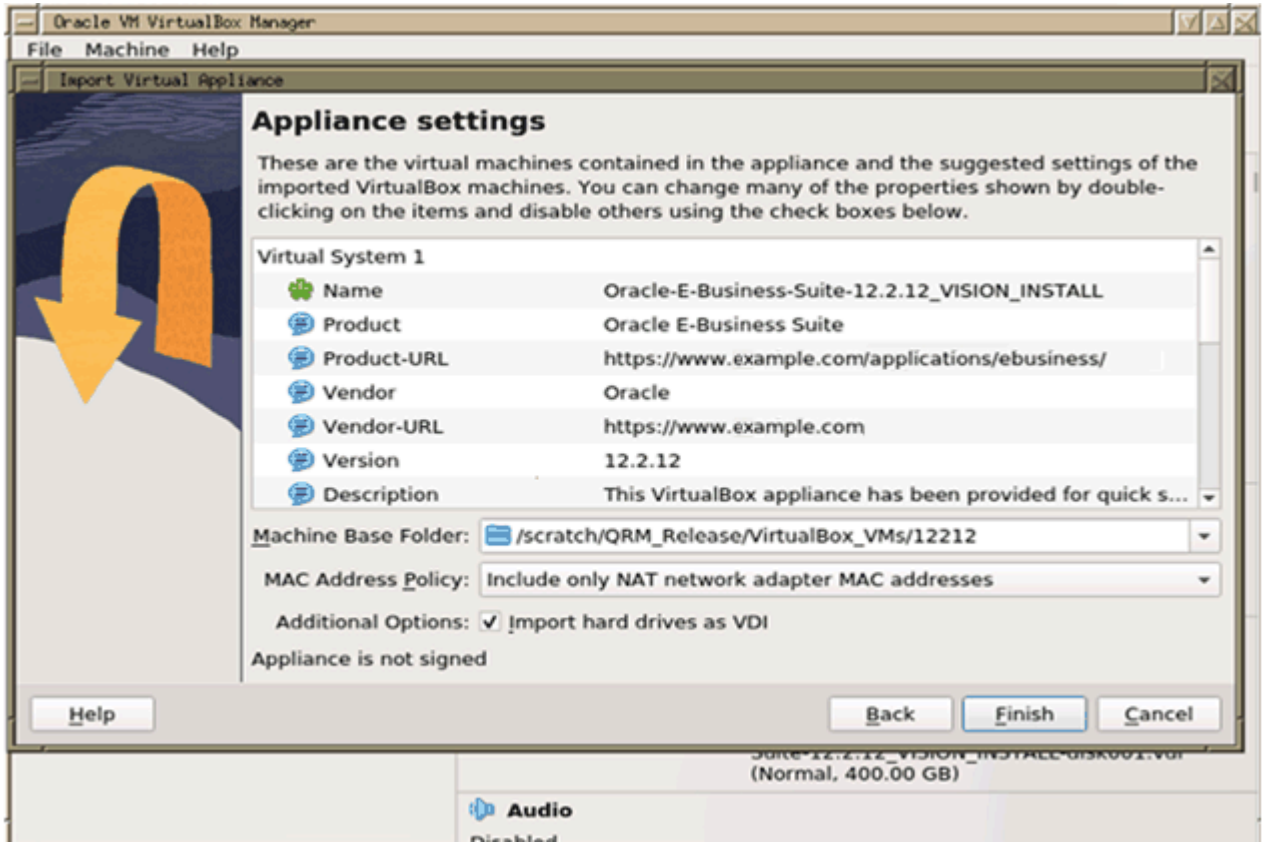
   Click the **Choose** icon and locate the `*.ova` file of the virtual machine that you want to import. Click the **Next** button.



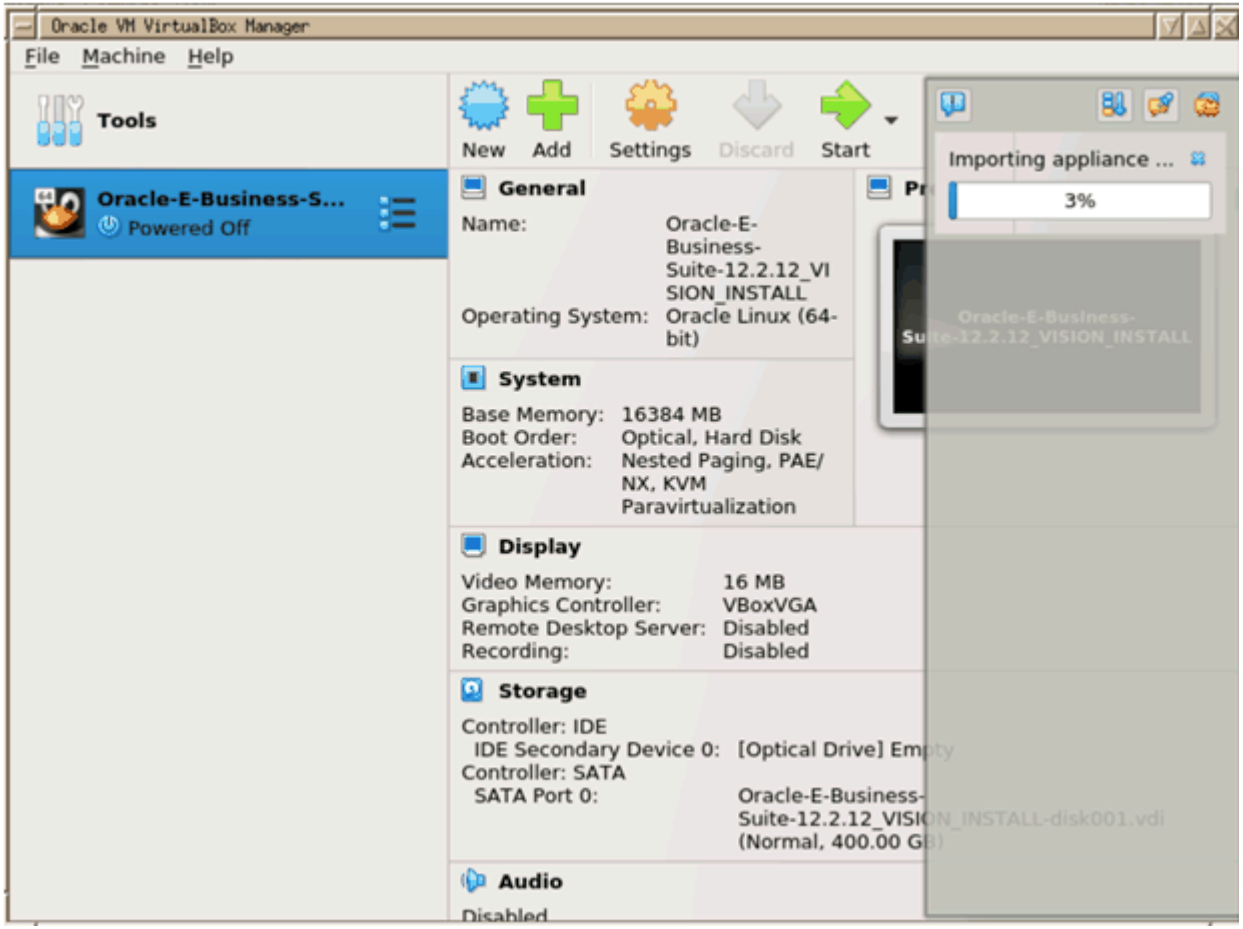
3. The Appliance Settings dialog appears.

> **Note:** In the import dialogue, you have the opportunity to make the imported disk image live in a non default path. Double-click the suggest path name for the imported VMDK file in order to edit it. This is useful if your *Default Machine Folder* is on a disk without the required 300+ GB free space.

Click the **Finish** button to import the VirtualBox appliance.



The import progress status dialog appears.



After the process completes successfully, the imported virtual machine is listed in the Oracle VM VirtualBox Manager.

Once you have imported the VirtualBox appliance, you may optionally remove the OVA (virtual appliance archive) file if you are not planning to create more virtual machines.

Section 3.5: Configuring the Virtual Machine

After the import and before the first boot, you have the opportunity to adjust the number of CPUs and the amount of RAM that the VM will have. To configure the VM, select the imported virtual machine and click the **Settings** icon from the toolbar.

Note that the configuration of the network settings depends on the number of CPUs and the size of the RAM you have. For example, you can get by with one CPU and 16 GB of RAM, but the system performs better if you have two to four CPUs and 16 GB to 18 GB in size of RAM to spare.

The OS in the VM is configured to obtain an IP Address via DHCP as its first choice. If DHCP is not available, the VM prompts you for static IPv4 information.

- If you start the VM on a stationary computer on a LAN with DHCP and want the VM accessible from other hosts on your network, you can attach network Adapter 1 as a **Bridged Adapter**. This will make the (guest) VM get its own IP address, independent of its host.
- If you start the VM on a laptop computer that may move between networks, or if sharing widely is not required or desired, you should select **NAT** or **Host-Only** for network Adapter 1.
    - **Host-Only** allows your browser and SSH client on your laptop access to the VM.
    - **NAT** allows you to enable port forwards so that all hosts on your network can connect to the VM (SSH or PuTTY) using the host's IP address, but beware of port conflict with the host.

      If you decide on **NAT**, configure port forwards for SSH, HTTP, HTTPS, and optionally WLS-admin:

Name	Protocol	Host IP	Host Port	Guest IP	Guest Port
SSH	TCP		8022		22
HTTP	TCP		8000		8000
HTTPS	TCP		4443		4443
WLS	TCP		7001		7001

For information about network settings, see the *Oracle VM VirtualBox User Manual*. Additionally, review the virtual machine settings to make sure that the virtual machine has the required hardware resources in order to operate. See: Section 3.1: Reviewing Hardware Requirements for details.

Before starting the VM, you can optionally create a snapshot of the imported VM disk. This allows all changes to the disk to be written to a separate disk file containing deltas. In case unexpected situations occur, you can return to the just-imported state without importing it again. To make a snapshot, select the imported VM from the list and then click the **Snapshots** icon in the toolbar. Select the **Current State** line and then click the snapshot camera icon. In the pop-up dialog, save the snapshot, such as "Just Imported". For information about snapshots, see the *Oracle VM VirtualBox User Manual*.

To start the VM, select the imported virtual machine from the list, and then click the **Start** button in the toolbar.

Section 4: Using the Virtual Machine for the First Boot

This section describes the first boot and some initial configuration of user passwords for both Oracle VM and VirtualBox hosted VMs. It includes the following sections:

- Section 4.1: Starting the First Boot
- Section 4.2: Configuring the Application Before the First Use

Section 4.1: Starting the First Boot

As the VM boots, you will see a purple progress bar at the bottom of the screen. Press the **ESC** key to see the detailed boot progress. At the end of the boot process, the console displays a login prompt.

1. When prompted, log in as the `root` user and press **Return**.

```
Oracle Linux Server release 7.9
Kernel 5.4.17-2036.100.6.1.el7uek.x86_64

apps login: root
```

2. When prompted, enter new passwords for the `root`, `oracle`, and `applmgr` users.

```
Changing password for user root.
New password: password
Retype new password: password
password: all authentication tokens updated successfully.
Changing password for user oracle.
...
```

3. After you change passwords, the VM will attempt to configure the first ethernet adapter for DHCP with the host name `apps.example.com`.

   If the VM gets an IP address from DHCP, it displays the information as shown in the following example:

```
Network configuration changed successfully.
   IP configuration: DHCP
   IP address: 192.0.2.27
   Netmask: 255.255.255.0
   Gateway: 192.0.2.1
   DNS Server: 192.0.2.53
   Hostname: apps.example.com
```

   If the VM did not get an IP address from DHCP, you will be prompted for static IP information and a host name before the post clone steps including AutoConfig proceed. Enter `apps.example.com` as the host name and provide IP address, netmask, gateway, and DNS address consistent with your local network.

```
Couldn't obtain a DHCP Address during boot. Attempting to configure the machine with a static IP Address

Use the hostname "apps.example.com" when prompted to avoid re-configuration of the db/application tier file system

Press any key to continue...
...
Enter static IP address: 192.0.2.27
Enter netmask: [255.255.255.0] 255.255.255.0
Enter gateway: 192.0.2.1
Enter DNS server: 192.0.2.53

Enter hostname (e.g, host.example.com) [somehost.example.org]: apps.example.com
```

   After you set the passwords and IP address if required, the initial login script proceeds to start the database and run Oracle E-Business Suite post clone steps, including AutoConfig. After that the database is shut down again. No user input is required during this process.

4. When prompted, select whether to add `start` and `stop` of the database and application tier processes to the OS boot script. Enter `VISION` to add scripts to the boot process.

```
Enter VISION for configuring the VISION Demo Instance
or NONE to login to the VM
VISION
```

The following prompt appears after configuring the Vision Demo instance:

```
[root@apps tmp]#
```

5. Correct the DNS server for static IP (Conditional)

   If you configured the VM to use a static IP address, you must configure the contents of `/etc/resolv.conf`. Add the following lines (assuming the same sample values shown in step 3 above):

```
nameserver 192.0.2.53
search example.com
```

Section 4.2: Configuring the Application Before the First Use

Use the following steps to start the database and application processes:

1. Start the database tier processes by executing the boot script:

```
[root@apps tmp]# service ebscdb start
```

2. Once the database is started, log in as the `oracle` user to enable Oracle E-Business Suite users who are typically used for demonstrating the Oracle E-Business Suite Vision environment.

   Note: You can get another shell by pressing **ALT+F2** in the console or use a SSH client (SSH or PuTTY) to connect to the VM through a terminal with copy and paste support.

```
[otherhost]$ ssh oracle@<vmip> # [-p 8022]
```

   On `<vmip>`, if you use **Bridged Adapter** or **Host-Only** for your network, use the IP address of the VM. If you use **NAT**, use the local host and the port you forwarded to the guest port 22.

   Note: By default Oracle E-Business Suite users, such as `SYSADMIN`, are locked down. To enable these users, you need to assign new passwords in order to log in through the web interface.

   - Use the following command to create an empty directory for the FNDCPASS script to generate log files with the results in the current directory:

```
[oracle@apps ~]$ mkdir ~/log ; cd ~/log
```

- Enable the SYSADMIN user using this command:

```
[oracle@apps log]$ /u01/install/APPS/scripts/enableSYSADMIN.sh
```

- Enable the Vision demo users using this command:

```
[oracle@apps log]$ /u01/install/APPS/scripts/enableDEMOusers.sh
```

- Change the database passwords for the base product schemas:

```
[oracle@apps log]$ /u01/install/APPS/scripts/changeDBpasswords.sh
```

When the script prompts you to provide the password for the EBS_SYSTEM user, enter 'manager'.

> **Note:** Once you have completed the setup tasks described in this document, you can change the passwords for APPLSYSPUB, APPLSYS, APPS, and APPS_NE schemas. See Appendix B Database Schemas Found in Oracle E-Business Suite, *Oracle E-Business Suite Security Guide* for details.

- Check the log files to verify if the processes succeed:

```
[oracle@apps log]$ grep 'changed successfully' L*.log
[oracle@apps log]$ egrep -i 'error|failed|invalid' L*.log
```

- If the egrep command returns any rows, resolve the issues of errors or failed scripts before proceeding to the next step.

3. Add the IP restriction to the database TNS listener using the following command after setting the environment for database ORACLE_HOME:

```
[oracle@apps ~]$ . /u01/install/APPS/19.0.0/EBSCDB_apps.env
```

```
[oracle@apps ~]$ cd $TNS_ADMIN/EBSDB_apps

[oracle@apps EBSDB_apps]$ cat > sqlnet_ifile.ora <<EOF
tcp.validnode_checking = YES
tcp.invited_nodes = ( apps.example.com )
EOF
[oracle@apps ~]$ lsnrctl stop EBSCDB
[oracle@apps ~]$ lsnrctl start EBSCDB
```

Now the database listener will only accept connection requests from this host apps.example.com.

4. With the database environment variables that are set, set the new passwords for the SYS global user and the EBS_SYSTEM PDB administrator.

Note that Oracle E-Business Suite will be using EBS_SYSTEM as the SYSTEM user in the PDB. You can optionally set the new password for the SYSTEM global user if needed, but the new password must be different from the EBS_SYSTEM password you just set here.

```
[oracle@apps ~]$ sqlplus / as sysdba
```

```
SQL> alter user SYSTEM identified by <NEW_PASSWORD> ; -- optional
SQL> alter user SYS identified by <NEW_PASSWORD> ;
SQL> sho pdbs ;
SQL> alter session set container = EBSDB ;
SQL> alter user EBS_SYSTEM identified by <NEW_PASSWORD> ;
SQL> exit
```

5. Start the application tier processes using either one of the following options:
   - Option 1: In your current terminal, use the Unix command **su** to temporarily become `root` to perform this task, before returning to the `oracle` session.

     ```
     [oracle@apps ~]$ su -
     Password:

     [root@apps ~]# service apps start
     [root@apps ~]# exit

     [oracle@apps ~]$
     ```

   - Option 2: Open a new terminal, log in as the `root` user and run the following command:

     ```
     [root@apps ~]# service apps start
     ```

     Return back to the original terminal that has the `oracle` session you used in earlier steps for step 6.

6. Change the password for the Oracle WebLogic Server (WLS) administrator user `weblogic` by using the following steps:

   a. Source the run file system with the `oracle` user:

   ```
   [oracle@apps ~]$ . /u01/install/APPS/EBSapps.env run
   ```

   b. Stop most of the application tier processes, but leave the Node Manager and Admin server running:

   ```
   [oracle@apps ~]$ adstpall.sh -skipNM -skipAdmin
   ```

   When prompted, enter APPS user name (`apps`), APPS password, and current WebLogic Server password (`welcome1`).

   c. Change password for the Oracle WebLogic Server administrator user `weblogic`:

   ```
   [oracle@apps ~]$ perl $FND_TOP/patch/115/bin/txkUpdateEBSDomain.pl -action=updateAdminPassword
   ```

   Accept the default apps context file path when prompted, enter current WebLogic Admin password, new WebLogic Admin password, and APPS password.

   d. Start all the application tier processes again on the run edition file system.

   ```
   [oracle@apps ~]$ adstrtal.sh
   ```

   When prompted, enter APPS user name, APPS password, and WebLogic Server password.

e. Make boot scripts reflect the new WebLogic Server password.

Replace `<NEW_PASSWORD>` with the password you just changed earlier for the `weblogic` user in the following command:

```
[oracle@apps ~]$ cd /u01/install/APPS/scripts/
[oracle@apps scripts]$ chmod 700 st*apps.sh
[oracle@apps scripts]$ for f in st*apps.sh ;do sed -i 's/welcome1/<NEW_PASSWORD>/' $f ;done
```

7. Enable Oracle E-Business Suite Integrated SOA Gateway (ISG) by using the following commands:

```
[oracle@apps ~]$ cd ~/log
[oracle@apps ~]$ /u01/install/APPS/scripts/enableISG.sh
```

Note: In this deployment of the Oracle VM virtual appliance, the required setup tasks for enabling Oracle E-Business Suite REST services provided through Oracle E-Business Suite Integrated SOA Gateway are already preconfigured. This means that Oracle E-Business Suite integration interface definitions published in Oracle Integration Repository, a component in Oracle E-Business Suite Integrated SOA Gateway, are available for REST service deployment.

At the start of the script execution, when prompted, enter APPS Schema password and WebLogic password.

Note: Interface types enabled for REST services in this VM virtual appliance for Oracle E-Business Suite 12.2.12 are PL/SQL APIs, Java Bean Services, Application Module Services, Concurrent Programs, Business Service Objects, and Open Interface Tables and Views.

For more information on enabling the `ASADMIN` user and configuring Oracle E-Business Suite REST services, see *Installing Oracle E-Business Suite Integrated SOA Gateway, Release 12.2*, My Oracle Support Knowledge Document 1311068.1.

For information on deploying Oracle E-Business Suite REST services, see Administering REST Web Services, *Oracle E-Business Suite Integrated SOA Gateway Implementation Guide*. For information about the supported interfaces for REST services, see the *Oracle E-Business Suite Integrated SOA Gateway User's Guide*. For information on REST service invocations, see the *Oracle E-Business Suite Integrated SOA Gateway Developer's Guide*.

The Oracle E-Business Suite 12.2.12 single node Vision demo system is now ready for use. The database and application tier processes are running and it is time to try the web interface.

You can try to access the web server from the command line:

```
[oracle@apps ~]$ curl http://apps.example.com:8000/robots.txt
```

Section 5: Accessing the Oracle E-Business Suite Home Page

Once you configured the Oracle E-Business Suite system after the first boot, the system should be available at `http://apps.example.com:8000/`.

If no further configuration, you can access the Oracle E-Business Suite web server at `http://<IP ADDRESS>:8000/` and that will work for simple requests, such as `http://<IP ADDRESS>:8000/robots.txt`. However, if you try to get to the login page that involves HTTP redirects (302), the access will fail unless your browser knows where to locate

`apps.example.com`.

Note: To provide secured network connections, it is recommended that you enable TLS in Oracle E-Business Suite. See *Enabling TLS in Oracle E-Business Suite Release 12.2*, My Oracle Support Knowledge Document 1367293.1 for required setup and configuration details.

There are two ways to overcome this:

- **Option 1**: Let your browser know what IP address `apps.example.com` corresponds to.

  This option is to edit the `/etc/hosts` file by adding a line in the `/etc/hosts` file of the host that runs your browser.

  To edit the file on Windows, add a line in `c:\windows\system32\drivers\etc\hosts`. You can open the file by pasting "`notepad c:\windows\system32\drivers\etc\hosts.`" in the Run box from the **Start** menu. The trailing dot '.' is not optional.

  - If you use a **Bridged Adapter** or **Host-Only Adapter** in Oracle VM VirtualBox, the VM has an IP address that it knows about and you can get it from the `/etc/hosts` file in the VM.

    ```
    [oracle@apps ~]$ grep apps.example.com /etc/hosts
    xx.xxx.xx.xxx apps.example.com apps
    ```

  - If you use **NAT** in Oracle VM VirtualBox, the IP address is the IPv4 address of your VM host and the port forwards will pass traffic to the web server running in the VM.

- **Option 2**: Let Oracle E-Business Suite know the web entry point that your browser knows.

  This option is to modify the Oracle E-Business Suite web server's idea of where its web entry point is. That way the system will redirect to that host name, irrespective of the host name that the web server thinks it is running on.

  In this option, you must determine the DNS name of the IP address where the VM listens. This can be done using the host command in the VM, assuming that it has proper DNS configuration.

  For example, the IP address known outside of the VM is "192.0.2.27".

  ```
  [oracle@apps ~]$ host 192.0.2.27
  27.2.0.192.in-addr.arpa domain name pointer somehost.example.org.
  ```

  Set the application environment to the run file system and then execute the `configwebentry.sh` script using the following commands:

  ```
  [oracle@apps ~]$ . /u01/install/APPS/EBSapps.env run
  [oracle@apps ~]$ /u01/install/scripts/configwebentry.sh
  ```

  When prompted, make sure to enter all the values and use your actual host and domain names.

```
Enter the Web Entry Protocol (Eg: https/http): http
Enter the Web Entry Host Name(Eg: public): somehost
Enter the Web Entry Domain Name:(Eg: domain.com): example.org
Enter the Web Entry Port:(Eg: 443/80): 8000
Enter the ORACLE_SID:(Eg: EBSDB): EBSDB
```

Note that the script does not use the displayed values as the default values. Values entered here are based on the "`somehost.example.org`" example.

Once the `configwebentry.sh` script is completed successfully, restart the application services.

Now your browser should be able to access the Oracle E-Business Suite web interface, either with the virtual name `apps.example.com` (option 1) or by the DNS name for the host (option 2).

Section 6: Client Access and Java Web Start

As stated previously, Java Web Start is enabled by default on this latest appliance.

For important information on how to access built-in Java applications within Oracle E-Business Suite from your client machine through various web browsers, refer to the "Browser User Experience and Configuration" section in My Oracle Support Knowledge Document 2188898.1, *Using Java Web Start with Oracle E-Business Suite*.

Section 7: Enabling SQL Developer Access

In order to access the Oracle E-Business Suite instance using SQL Developer, you must enable firewall access to port 1521 on your instance.

Perform the following steps to establish the connection:

1. Log in as the `root` user and run the following command to view the list of ports:

```
[root@apps ~]# firewall-cmd --list-all
```

2. If the port 1521 is not already enabled, use the following commands to enable port 1521:

```
[root@apps ~]# firewall-cmd --add-port=1521/tcp --permanent
[root@apps ~]# systemctl restart firewalld
```

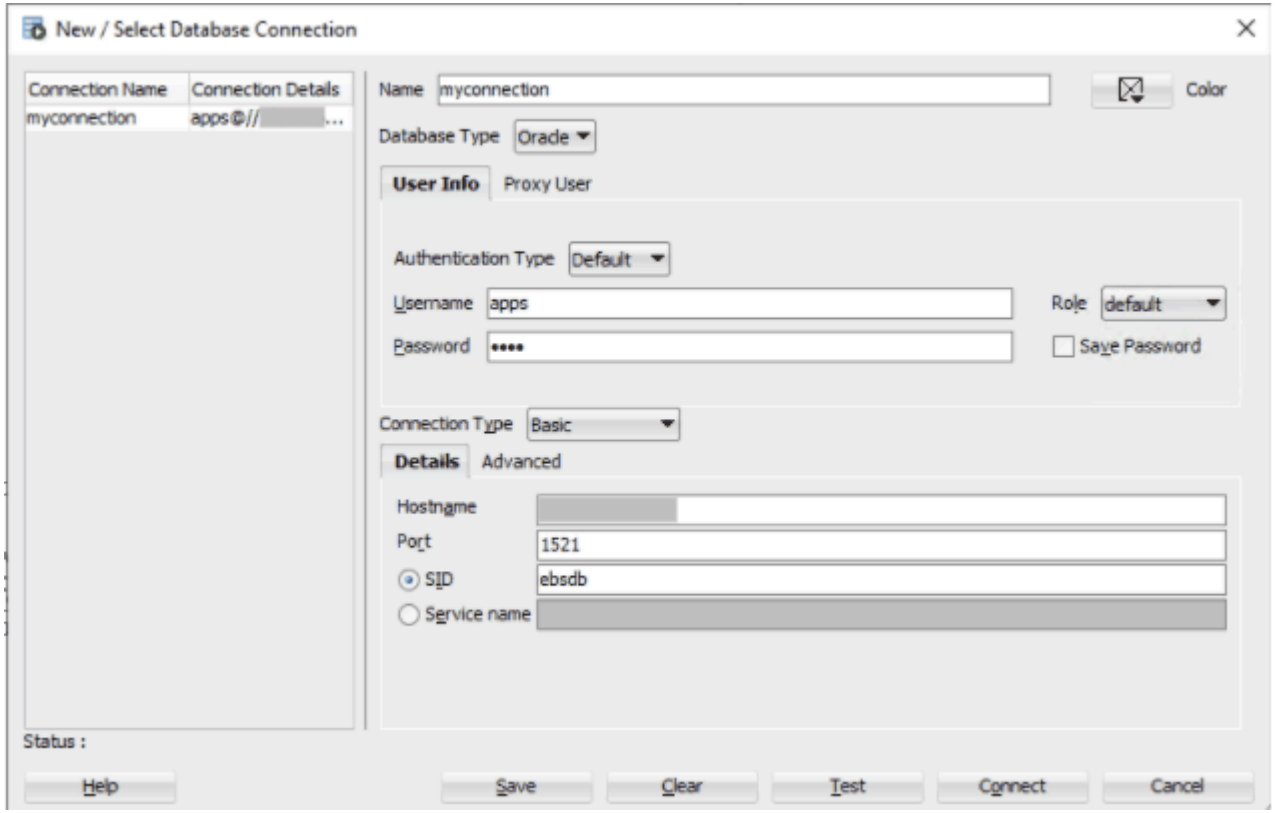
3. To confirm the change, use the following command:

```
[root@apps ~]# firewall-cmd --list-all
```

Once you complete the steps, you can test and verify the connection in SQL Developer.

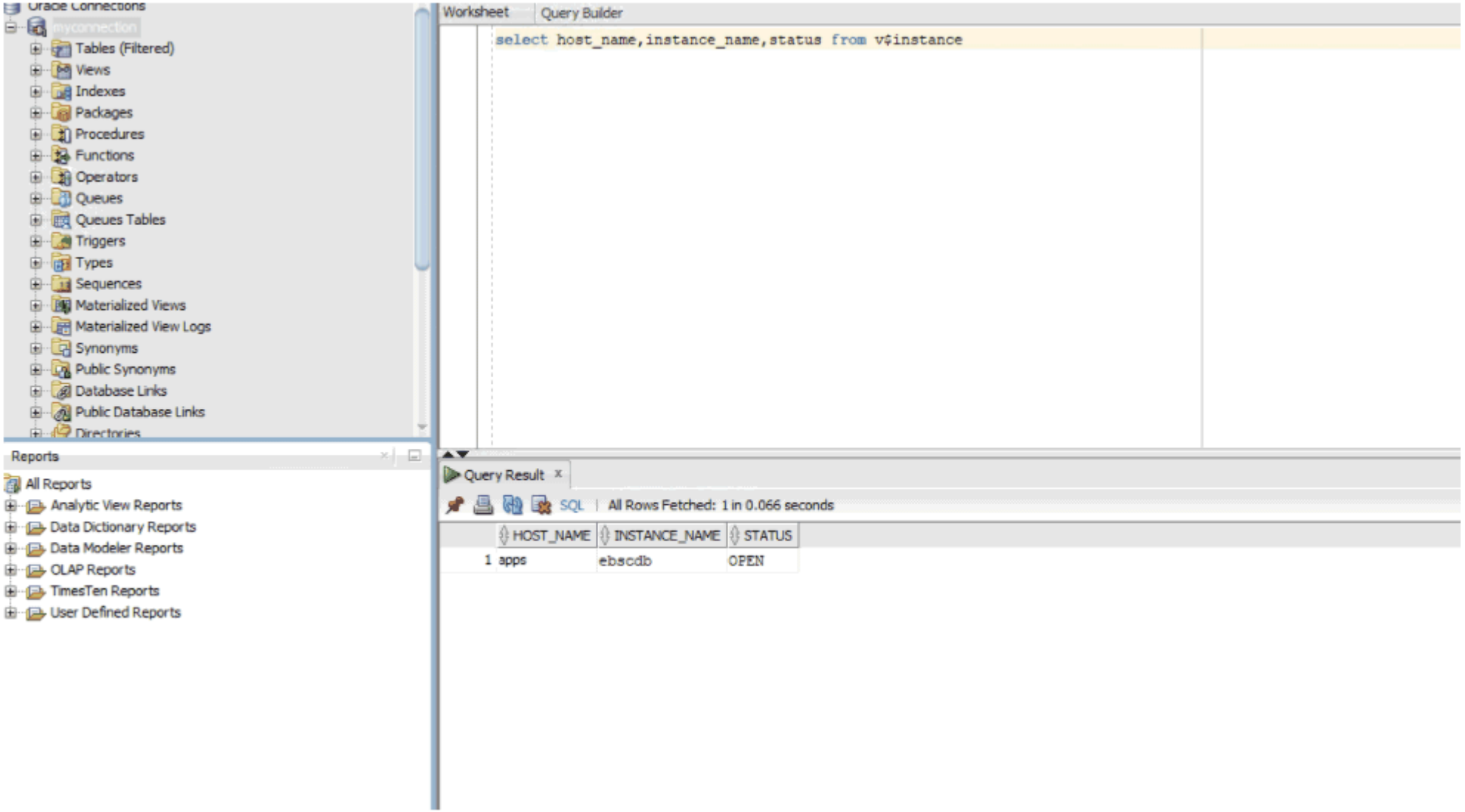
1. Create the connection in SQL Developer. Right-click the Connections node and select **New Connection**. The New / Select Database Connection dialog box appears.

2. Enter your database connection information, including connection name (such as "myconnection"), user name, password, connection type, role, host name, port, SID, and service name. Make sure 1521 is used as the database port.



3. Click **Test** to test the connection. If it's successful, then click **Connect** to actually connect to the database you just specified.

   For example, the database "myconnection" appears in the left pane. You can run a query to display the query results.



Section 8: Accessing the Oracle WebLogic Server Administration Console

Earlier you have performed needed tasks of changing the password for Oracle WebLogic Server (WLS) administrator user `weblogic`. You can now access the Oracle WebLogic Server Administration Console through Secure Shell (SSH) tunnel.

1. Establish the SSH tunnel from your workstation using the following commands:

```
[user@ws ~]$ ssh -Llocalhost:7001:apps:7001 oracle@apps.example.com
```

2. In a web browser, access the Oracle WebLogic Server Administration Console from the same host that established the SSH tunnel. For example, access the console using this URL:

```
http://localhost:7001/console
```

> **Note:** You cannot access the Oracle WebLogic Server Administration Console directly from your local workstation. The WLS connection filters established for WLS servers in `$EBS_DOMAIN_HOME/config/config.xml` only allow http access to port `:7001` from `apps.example.com` itself. The SSH tunnel ensures that your http connection to the WLS Administration server is encrypted.

Section 9: Available Directories and Scripts for Use in the Virtual Machine

> **Note:** The `oracle` user owns the database and application file systems for the single node Vision appliance.

The database file system in the virtual machine includes the following directories owned by the `oracle` user:

Purpose	Full File Path
INSTALL BASE	/u01/install/APPS
DB ORACLE_HOME	/u01/install/APPS/19.0.0
DBF FILES	/u01/install/APPS/data
source EBS CDB environment variables	/u01/install/APPS/19.0.0/EBSCDB_apps.env
source EBS PDB environment variables	/u01/install/APPS/19.0.0/EBSDB_apps.env

The application file system in the virtual machine includes the following directories owned by the `oracle` user:

Purpose	Full File Path
INSTALL BASE	/u01/install/APPS
File System 1 (FS1)	/u01/install/APPS/fs1
File System 2 (FS2)	/u01/install/APPS/fs2
APPL_TOP 1	/u01/install/APPS/fs1/EBSapps/appl
APPL_TOP 2	/u01/install/APPS/fs2/EBSapps/appl
FMW_HOME 1	/u01/install/APPS/fs1/FMW_Home

Purpose	Full File Path
FMW_HOME 2	/u01/install/APPS/fs2/FMW_Home
INST_TOP 1	/u01/install/APPS/fs1/inst/apps/<CONTEXT_NAME> [2]
INST_TOP 2	/u01/install/APPS/fs2/inst/apps/<CONTEXT_NAME> [2]

[2] When a virtual machine is created by default, <CONTEXT_NAME> is EBSDB_apps in the VM reflecting the Oracle E-Business Suite database SID (EBSDB) and the host name (apps).

The scripts to manage the Oracle E-Business Suite single node Vision installation are:

Purpose	Full File Path	Comment
Scripts BASE_DIR	/u01/install/APPS/scripts	Directory where Oracle E-Business Suite scripts reside
Start script for DB	/u01/install/APPS/scripts/startdb.sh	Run this script as the `oracle` user (also called from /etc/init.d/ebscdb)
Stop script for DB	/u01/install/APPS/scripts/stopdb.sh	Run this script as the `oracle` user (also called from /etc/init.d/ebscdb)
Start script for APPS	/u01/install/APPS/scripts/startapps.sh	Run this script as the `oracle` user (also called from /etc/init.d/apps)
Stop script for APPS	/u01/install/APPS/scripts/stopapps.sh	Run this script as the `oracle` user (also called from /etc/init.d/apps)
DB reconfigure script	/u01/install/APPS/scripts/dbconfig.sh	Run this script if you need to change SID
APPS reconfigure script	/u01/install/APPS/scripts/appsconfig.sh	Run this script if you changed SID or host name
DB cleanup script	/u01/install/APPS/scripts/dbcleanup.sh	Clean up in preparation for saving a new VM
APPS cleanup script	/u01/install/APPS/scripts/appscleanup.sh	Clean up in preparation for saving a new VM
Configure a new web entry point	/u01/install/scripts/configwebentry.sh	Change Oracle E-Business Suite web entry point

Note that before changing the host name of the virtual machine, you need to bring up the virtual machine with the default host name `apps.example.com` and then perform additional setup tasks. For detailed instructions on changing the host name of the virtual machine, see Appendix B: Procedure to Change the Host Name of the Virtual Machine.

The scripts to reconfigure the network for the virtual machine are:

Purpose	Full File Path	Comment
Scripts BASE_DIR	/u01/install/scripts	Directory where Oracle VM/OS scripts reside
Configure for DHCP	/u01/install/scripts/configdhcp.sh	No questions asked
Configure for static IP	/u01/install/scripts/configstatic.sh	Need IP address, Netmask, Gateway, DNS IP address, and host name
Script to clean up the VM	/u01/install/scripts/cleanup.sh	Clean up in preparation for saving a new VM

Section 10: Configuring Oracle E-Business Suite

To configure your Vision demo instance further, refer to the post-installation steps in the *Oracle E-Business Suite Installation Guide: Using Rapid Install*.

As part of our secure-by-default initiative, we have locked down some products using the Allowed Resources feature. If you receive a message "`Requested resource or page is not allowed in this site`", it could be that the product that you are trying to access has been locked down. For information on how to enable the product, refer to the subsection "Management by Product Hierarchy" under the "Allowed Resources" section in the "Oracle Application Object Library Security" chapter of *Oracle E-Business Suite Security Guide*.

Section 11: Security Updates

The Oracle VM infrastructure including the virtual machines must be kept up to date with the critical patch updates released by Oracle. Check the Critical Patch Updates, Security Alerts and Third Party Bulletin page and Oracle Critical Patch Update Advisory page for information on the latest security fixes.

Refer to Unbreakable Linux Network (support subscription required) or Oracle Public Yum Server for information on security updates to Oracle Linux and Oracle VM software. Please note that the VM ships configured for public-yum. If you wish to use the Unbreakable Linux Network instead, change the update source. Use the yum utility to apply the updates.

Refer to My Oracle Support (support subscription required) to obtain the updates to Oracle E-Business Suite and the included technology stack.

Additionally, refer to the *Oracle E-Business Suite Security Guide* for security related setup and configuration in Oracle E-Business Suite.

Section 12: Troubleshooting

The following table lists resources to help you diagnose any issues encountered while deploying Oracle VM for the Oracle E-Business Suite appliance:

Issue Category	Resource
Problems with Oracle VM Manager and Oracle VM Server	Refer to the Troubleshooting chapter, *Oracle VM Administrator's Guide* in the Oracle VM Server and Oracle VM Manager Documentation Library.
Problems with Oracle VM VirtualBox	Refer to the Troubleshooting chapter, *Oracle VM VirtualBox User Manual*.
Problems with Oracle VM Templates Deployment	Examine the `/var/log/oraclevm-template.log` file. The `oraclevm-template.log` is a centralized log file that includes information about the Oracle VM initialization and the Oracle E-Business Suite deployment.
Problems with Oracle E-Business Suite	Refer to *Oracle E-Business Suite Release 12.2 Information Center,* My Oracle Support Knowledge Document 1581299.1, for a full list of resources. Refer to the *Oracle E-Business Suite Security Guide* for security related setup and configuration, and the *Oracle E-Business Suite Setup Guide* for inf on system configuration tasks.
System Constraints	Verify that you have sufficient disk space and memory on the machine that is running the Oracle VM Server.

Section 13: Related Documentation

Review the following documents before deploying the appliances for Oracle E-Business Suite:

- *Oracle E-Business Suite Concepts*

  This guide provides essential information about the setup, design, and implementation of Oracle E-Business Suite.

- *Oracle E-Business Suite Installation Guide: Using Rapid Install*

  This guide provides instructions for installing Oracle E-Business Suite in the traditional manner, and contains general sizing information.

- *Oracle E-Business Suite User's Guide*

  This guide provides a high-level introduction to Oracle E-Business Suite technology and usage.

- *Oracle E-Business Suite Security Guide*

  This guide includes comprehensive range of security-related topics and configuration for Oracle E-Business Suite.

- *Oracle E-Business Suite Setup Guide*

  This guide contains information on system configuration tasks including defining concurrent programs and managers, enabling Oracle Applications Manager features, and setting up printers and online help.

For more information about Oracle E-Business Suite Release 12.2.12, refer to *Oracle E-Business Suite Release 12.2.12 Readme,* My Oracle Support Knowledge Document 2876726.1*, Oracle E-Business Suite Release 12.2 Information Center*, My Oracle Support Knowledge Document 1581299.1, and the Oracle E-Business Suite Online Documentation Library Release 12.2.12.

For information on Oracle VM Manager and Oracle VM Server, see the Oracle VM documentation available at Oracle VM Server and Oracle VM Manager Documentation Library.

For information on Oracle VM VirtualBox, see the *Oracle VM VirtualBox User Manual* available at Oracle Help Center.

Appendix A: Downloading, Reconstructing, and Staging the Downloaded Appliance

The instructions in this section guide you through the process of downloading and reconstructing the downloaded Oracle E-Business Suite appliance from the zip files.

Section A.1: Downloading the Oracle E-Business Suite Appliance from Oracle Software Delivery Cloud

The Oracle E-Business Suite Release 12.2.12 VM Virtual Appliance is delivered in a single media pack, "Oracle VM Virtual Appliance for Oracle E-Business Suite Release 12.2.12 Media Pack for x86 (64-bit)". This media pack contains a series of downloadable components or packages. Each component package contains one or more zip files which contain partial appliance files (0 through n) that make up the single node Vision appliance.

Virtual Appliance	Download Parts	Download Zip Files	Download File Size	OVA Size
Oracle VM Virtual Appliance for Oracle E-Business Suite 12.2.12	10	19	72 GB	72 GB

Note: The disk space required to download and reconstruct the required OVA file is two or three times of the download size. However, the runtime disk space, the download, and the assembly disk space need not be on the same disk.

For the single node Vision appliance, you will need the following 10 component packages in addition to the README First Document:

- V1034613-01 Oracle VM Virtual Appliance for Oracle E-Business Suite 12.2.12 README First Document
- V1034614-01 Oracle E-Business Suite Release 12.2.12 Single Node Vision Install X86 (64 bit) - (1 of 10)
- V1034637-01 Oracle E-Business Suite Release 12.2.12 Single Node Vision Install X86 (64 bit) - (2 of 10)
- V1034645-01 Oracle E-Business Suite Release 12.2.12 Single Node Vision Install X86 (64 bit) - (3 of 10)

- V1034652-01 Oracle E-Business Suite Release 12.2.12 Single Node Vision Install X86 (64 bit) - (4 of 10)
- V1034656-01 Oracle E-Business Suite Release 12.2.12 Single Node Vision Install X86 (64 bit) - (5 of 10)
- V1034663-01 Oracle E-Business Suite Release 12.2.12 Single Node Vision Install X86 (64 bit) - (6 of 10)
- V1034669-01 Oracle E-Business Suite Release 12.2.12 Single Node Vision Install X86 (64 bit) - (7 of 10)
- V1034670-01 Oracle E-Business Suite Release 12.2.12 Single Node Vision Install X86 (64 bit) - (8 of 10)
- V1034671-01 Oracle E-Business Suite Release 12.2.12 Single Node Vision Install X86 (64 bit) - (9 of 10)
- V1035290-01 Oracle E-Business Suite Release 12.2.12 Single Node Vision Install X86 (64 bit) - (10 of 10)

To download the VM Virtual Appliance for Oracle E-Business Suite Release 12.2.12:

1. Sign in to the Oracle Software Delivery Cloud (https://edelivery.oracle.com/) with your My Oracle Support credentials.
2. On the Oracle Software Delivery Cloud page, perform the following tasks:
    - Select "Download Package" from the drop-down list.
    - In the text field, enter "Oracle VM Virtual Appliance for Oracle E-Business Suite".

      Select "Oracle VM Virtual Appliance for Oracle E-Business Suite 12.2.12.0.0" from the populated package list. This action adds the selected package to the cart.

    - Click the **Selected Software Cart** link.

      The Selected Software region displays the selected "Oracle VM Virtual Appliance for Oracle E-Business Suite 12.2.12" media pack and the platform information.
3. Click the **Continue** button and accept the Oracle Standard Terms and Restrictions.

   You must do so before you can download the desired media pack.
4. Click the **Continue** button again.

   This retrieves the download window for your selected "Oracle VM Virtual Appliance for Oracle E-Business Suite 12.2.12 for x86 64 bit" media pack.
5. Download the package and thus the zip files which contain the associated appliance.

Section A.2: Reconstructing and Staging the Downloaded Appliance

Follow the instructions described in this section to extract the appliance from the downloaded zip files. Note that a script is provided in this document for this purpose.

> **Note:** Use the script provided in this document to automate the appliance extraction process when the Vision demo packages are downloaded into the desired directory.

You can use either one of two methods to unzip these files and concatenate them to create the Oracle VM virtual appliance that can be imported into Oracle VM Manager or Oracle VM VirtualBox.

Method 1: Script-Based Method

We provide two different scripts, `assemble.sh` (UNIX) and `assemble_OSX.sh` (Mac).

Disclaimer: These scripts are provided for convenience only, and may not have been tested on your operating system version. If you use Cygwin or if you encounter difficulty, use the manual method described in Method 2 instead.

Note: Unzipping and assembling using the script in this method requires 216 GB (about 3 times the OVA size) free space in the download directory. That is 72 GB for downloaded zip files, 72 GB for unzipped OVA parts, and 72 GB for the final OVA file.

Perform the following steps to extract and assemble the Oracle E-Business Suite 12.2.12 VM virtual appliance by using a script:

1. Download `assemble_12212.zip` (Attachment 2933812.1:assemble_12212) to the machine where you placed the downloaded zip files.
2. Unzip the downloaded `assemble_12212.zip` file to retrieve `assemble.sh` (UNIX) or `assemble_OSX.sh` (Mac).
3. Copy all the files from the unzipped directory `assemble/VISION_INSTALL_MEDIA` to the directory where the media pack has been downloaded.

```
cp assemble/VISION_INSTALL_MEDIA/* <MediaPack_Download_Directory>/
cd <MediaPack_Download_Directory>
```

4. Run the `assemble.sh` or `assemble_OSX.sh` script in the directory that contains the downloaded files to extract and assemble the appliance files.

   Refer to the README.txt inside the assemble directory for more details.

   After running the script, you should find the following output appliance file for Oracle E-Business Suite 12.2.12 Vision demo:

   `Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova`

Method 2: Manual Method

First unzip the files that you downloaded earlier, and then concatenate the files in sequence to create the output appliance file.

For instance, run the following commands in the directory where the zip files are present:

Note: If you follow the procedure listed below, you will need to have 144 GB (2 * 72) free space in the file system in addition to the 72 GB used by the downloaded zip files.

If you do have sufficient space but it is in, for example, three different file systems, you can have the zip files on one file system, the unzipped files on another file system, and the final, combined OVA file on the other file system. Just change the `unzip` and `cat` commands accordingly.

```
for i in *.zip
do
```

```
  unzip $i
done
```

Note: If you have constraints on disk space, you may delete the downloaded zip files before creating the final, combined OVA file.

```
cat Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.00 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.01 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.02 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.03 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.04 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.05 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.06 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.07 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.08 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.09 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.10 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.11 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.12 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.13 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.14 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.15 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.16 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.17 \
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova.18 >
Oracle-E-Business-Suite-12.2.12_VISION_INSTALL.ova
```

For information on importing the appliance, refer to:

- Section 2.2: Importing the Oracle E-Business Suite Appliance Using Oracle VM Manager
- Section 3.4: Importing the Individual VirtualBox Appliance Using Oracle VM VirtualBox Manager

Appendix B: Procedure to Change the Host Name of the Virtual Machine

Changing the logical host name of the virtual machine is not mandatory for accessing Oracle E-Business Suite applications. Our recommendation is to continue using the logical or virtual name as set when you install and front end the virtual machine with the virtual machine's public host name or any other device, such as a reverse proxy or a load-balancer, for access from external clients. Administrators can use the `configwebentry.sh` script shipped in the `/u01/install/scripts` directory for this purpose.

Please note that the instructions described in this section have been validated on the single node Vision instance virtual machine.

Perform the following steps to change the host name of the virtual machine:

1. Start the virtual machine.
2. Log in as the `oracle` user.

3. Source the runtime environment:

```
[oracle@apps ~]$ . /u01/install/APPS/EBSapps.env run
```

4. Run the following command to start the Admin server:

```
[oracle@apps ~]$ $INST_TOP/admin/scripts/adadminsrvctl.sh start
```

5. Run the following command:

```
[oracle@apps ~]$ $INST_TOP/admin/scripts/adpreclone.pl appsTier
```

6. Run the following command on the run file system to shut down the Oracle E-Business Suite application tier services:

```
[oracle@apps ~]$ /u01/install/APPS/scripts/stopapps.sh
```

7. Run the following command to shut down the Oracle E-Business Suite database tier services:

```
[oracle@apps ~]$ /u01/install/APPS/scripts/stopdb.sh
```

8. Run the following command as the `root` user and provide the same IP configuration details and the new host name:

```
[root@apps ~]# /u01/install/scripts/configstatic.sh
```

9. Use the following two `chkconfig` commands to ensure that the boot scripts will not automatically start the database and application tiers upon boot. Use `init 6` to reboot the VM.

```
[root@apps ~]# chkconfig apps off
[root@apps ~]# chkconfig ebscdb off
[root@apps ~]# init 6
```

   It is important that the database and application tier processes do not start when the VM boots.

   Note that the reboot of VM will ask for IP address, Netmask, and Gateway information. Provide the same IP configuration details and the new host name for the reboot.

10. Once the virtual machine has rebooted, log in as the `root` user and ensure `echo $HOSTNAME` returns the new host name.

11. Add the IP restriction to the database TNS listener using the following command after setting the environment for database ORACLE_HOME:

```
[oracle@newhostname ~]$ . /u01/install/APPS/19.0.0/EBSDB_apps.env
```

```
[oracle@newhostname ~]$ cd $TNS_ADMIN/

[oracle@newhostname EBSDB_apps]$ cat > sqlnet_ifile.ora <<EOF
tcp.validnode_checking = YES
```

```
tcp.invited_nodes = ( <NEW_HOST_NAME> )
EOF
```

Now the database listener will only accept connection requests from this new host name `<NEW_HOST_NAME>`.

12. Run the following command as the `oracle` user:

Note: Change the SID of the Database (Conditional)

Before running `dbconfig.sh`, if you want to change the SID of the database at this stage, perform the following task:

- Edit the `db_pairs.txt` file in the `/u01/install/APPS/scripts/` directory using the following commands:

```
[oracle@newhostname ~]$ cd /u01/install/APPS/scripts/
[oracle@newhostname ~]$ sed -i "s/^s_dbSid=.*$/s_dbSid=VIS12212/" db_pairs.txt
[oracle@newhostname ~]$ sed -i "s/^s_pdb_name=.*$/s_pdb_name=VIS12212/" db_pairs.txt
```

In this example, consider "VIS12212" the new SID.

```
[oracle@newhostname ~]$ /u01/install/APPS/scripts/dbconfig.sh
```

When the `dbconfig.sh` script completes, the database is left running with its new SID, such as "VIS12212", in this example.

13. Run the following command:

Note: Change the SID of the Application (Conditional)

Before running `appsconfig.sh`, if you want to change the SID of the application at this stage, perform the following task:

- Edit the `appspairs.txt` file in the `/u01/install/APPS/scripts/` directory using the following commands:

```
[oracle@newhostname ~]$ cd /u01/install/APPS/scripts/
[oracle@newhostname ~]$ sed -i "s/^s_dbSid=.*$/s_dbSid=VIS12212/" appspairs.txt
change s_contextname to VIS12212_%HOSTNAME_NODOMAIN%
change s_config_home=/u01/install/APPS/fs1/inst/apps/VIS12212_%HOSTNAME_NODOMAIN%
If weblogic password changed, then change s_weblogic_pass=<NEW Password>
```

```
[oracle@newhostname ~]$ /u01/install/APPS/scripts/appsconfig.sh
```

If the script returns an error while creating the patch file system, perform the following steps to re-create the patch file system:

a. Stop any processes that is running from the patch file system.

b. Log in as the `oracle` user and source the run file system.

```
[oracle@newhostname ~]$ . /u01/install/APPS/EBSapps.env run
```

c. Perform the following steps to ensure that you can run online patching cycles without any errors on the reconfigured environment:

i. Bring up processes from the run file system if they are down.

ii. Execute two `adop` empty cycles using the following commands:

```
[oracle@newhostname ~]$ adop phase=prepare
[oracle@newhostname ~]$ adop phase=cutover
[oracle@newhostname ~]$ adop phase=prepare
[oracle@newhostname ~]$ . /u01/install/APPS/EBSapps.env run
[oracle@newhostname ~]$ adop phase=cutover
```

14. Attach inventory post appsconfig by executing the following command as the `oracle` user:

```
[oracle@newhostname ~]$ /u01/install/APPS/19.0.0/oui/bin/attachHome.sh
```

Appendix C: Prerequisites for Applying Oracle E-Business Suite Patches

Before executing the `adop` actions including applying patches on the Oracle E-Business Suite Release 12.2.12 Vision virtual appliance environment, ensure that you have the following prerequisites in place:

- The memory, disk, and CPU allocation can be increased using the Oracle VM Manager or Oracle VM VirtualBox Manager interface. It is recommended that you update the memory to 16 GB and CPU configuration to 4 CPU at the minimum.

  For more information about patching utilities, refer to the *Oracle E-Business Suite Maintenance Guide*.

Change Record

Date	Description
2023-05-19	• Initial publication.

Note: In the examples in this document, host name and domain details all represent a fictitious sample. Any similarity to actual host names and domains is purely coincidental and is in no way intentional on the part of Oracle.

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