

Preparing to Deploy Bare Metal Oracle Database Appliance

1 Install the Hardware and Configure My Oracle Support

- Ensure that the system hardware is set up and mounted properly as specified in *Oracle Database Appliance Owner's Guide*, found on:
<http://www.oracle.com/pls/topic/lookup?ctx=dba21>
- Verify that your shipment contains the correct power cables for your location.
- Verify that at least six 1 GbE cables are available.
- Obtain your hardware Support Identifier (SI) from your hardware vendor.
- Add the hardware SI that you received with Oracle Database Appliance to your My Oracle Support profile. If you acquired new software licenses, then also add the new software SIs. Each SI registration may take up to 24 hours.
<https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=1070936.1>

Note: You cannot obtain software or support from Oracle without registered hardware and software SIs.

2 Set Up the Network Configuration

- Collect the following network and cluster information from your network administrator:
 - Generic network information
 - Domain name (for example, example.com)
 - Domain name server addresses
 - (Optional)** Network Time Protocol server addresses
 - Cluster network information
 - Single Client Access Name (SCAN) and two addresses (for example, hrsys-scan and 192.0.2.16, 192.0.2.17)
 - Netmask for public network (for example, 255.255.252.0)
 - Gateway for public network (for example, 192.0.2.1)

3 Set Up Network Configuration, Continued

- Collect the following cluster node information from your network administrator:
 - Node 0 network information
 - Public name and address (for example, hrsys0 and 192.0.2.18)
 - VIP name and address (for example, hrsys0-vip and 192.0.2.19)
 - Node 1 network information
 - Public name and address (for example, hrsys1 and 192.0.2.20)
 - VIP name and address (for example, hrsys1-vip and 192.0.2.21)

Note: Public, VIP, and SCAN IP addresses must be on the same subnet.

Note: For virtualization, your network administrator must provide extra IP addresses for dom0, dom1, and virtual machines.

4 Set Up Oracle ILOM Configuration (Recommended)

- Configure Oracle Integrated Lights Out Manager (Oracle ILOM) for managing Oracle Database Appliance independently of the operating system.
- Collect the following information for your Oracle ILOM network:
- Oracle ILOM name and address for node 0 (for example, hrsysilom and 10.0.0.3)
 - Oracle ILOM name and address for node 1 (for example, hrsysilom and 10.0.0.4)
 - Netmask for management network (for example, 255.255.255.0)
 - Gateway for management network (for example, 10.0.0.1)

Note: For information about configuring Oracle Database Appliance network bonding, see:

<https://support.us.oracle.com/oip/faces/secure/km/DocumentDisplay.jspx?id=1422563.1>

5 Plan the Software and Database Configuration Choices

- Plan your software installation choices as follows:
 - Configuration type: Custom
 - System name (for example, hrsys)
 - Region (for example, America)
 - Time zone (for example, America/Los_Angeles)
 - Deployment type (for example, Oracle Real Application Clusters).
 - Database backup (for example, External). Local appliance backups leave 1.6 TB (maximum) and external appliance backups leave 3.2 TB (maximum) for Oracle Database.
- Prepare to enter information for the following fields:
 - Database Name (for example, hrdb)
 - DB Class (for example, Small)
 - Database Language (for example, English)
 - Database Block Size (for example, 8192)
 - Database Character Set (for example, AL32UTF8)
 - Database Territory (for example, America)

6 Plan for Oracle Auto Service Request and Oracle Cloud File System Size (Optional)

- To configure Oracle Auto Service Request, be prepared to provide the following:
 - Proxy server name to use for your deployment
 - Your My Oracle Support account user name and password

For more information about Oracle Auto Service Request, see:
<http://www.oracle.com/technetwork/systems/asr/overview/index.html>

NOTE: Always specify your product serial number or hardware SI when opening service requests in My Oracle Support.

- To change the default name and size of Oracle Cloud File System, be prepared to provide the following:
 - Name of file system (default name is /cloudfs)
 - Size of file system (default size is 50 GB)

7 Download the Software

- (Recommended)** Download Oracle Appliance Manager Configurator:
<http://www.oracle.com/technetwork/server-storage/engineered-systems/database-appliance/index.html>
 - Run the configurator, preferably on a computer that is on a network that is local to where you plan to install Oracle Database Appliance.
 - Enter and validate your configuration choices with the configurator. This creates a configuration file that you can use during actual deployment. You can also run Oracle Appliance Manager Configurator directly from Oracle Database Appliance during deployment.

NOTE: For information about the configuration options such as Deployment Type, Database Class, or any of the other options, refer to Oracle Appliance Manager Configurator online help.

- Follow the instructions in My Oracle Support Note 888888.1:
<https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=888888.1>
 - Download the latest software (Oracle Database Appliance End-User Bundle) to a local computer on the network.
 - Download the latest available Oracle Database Appliance patch bundle, which you must apply before or after deployment, and review the README files.

8 Review Oracle Database Appliance Information

- Review the most recent version of this poster in the Oracle Database Appliance online documentation library:
<http://www.oracle.com/pls/topic/lookup?ctx=dba21>
- Review the Oracle Database Appliance FAQs and online demos on Oracle Technology Network:
<http://www.oracle.com/technetwork/server-storage/engineered-systems/database-appliance/index.html>
- Review the Oracle Database Appliance Information Center, which is contained in My Oracle Support Note 1417713.2:
<https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=1417713.2>
You can also scan the Quick Response Code with your mobile device to access the Oracle Database Appliance Information Center:



- Review the latest information about Oracle software and hardware products:
<http://www.oracle.com>

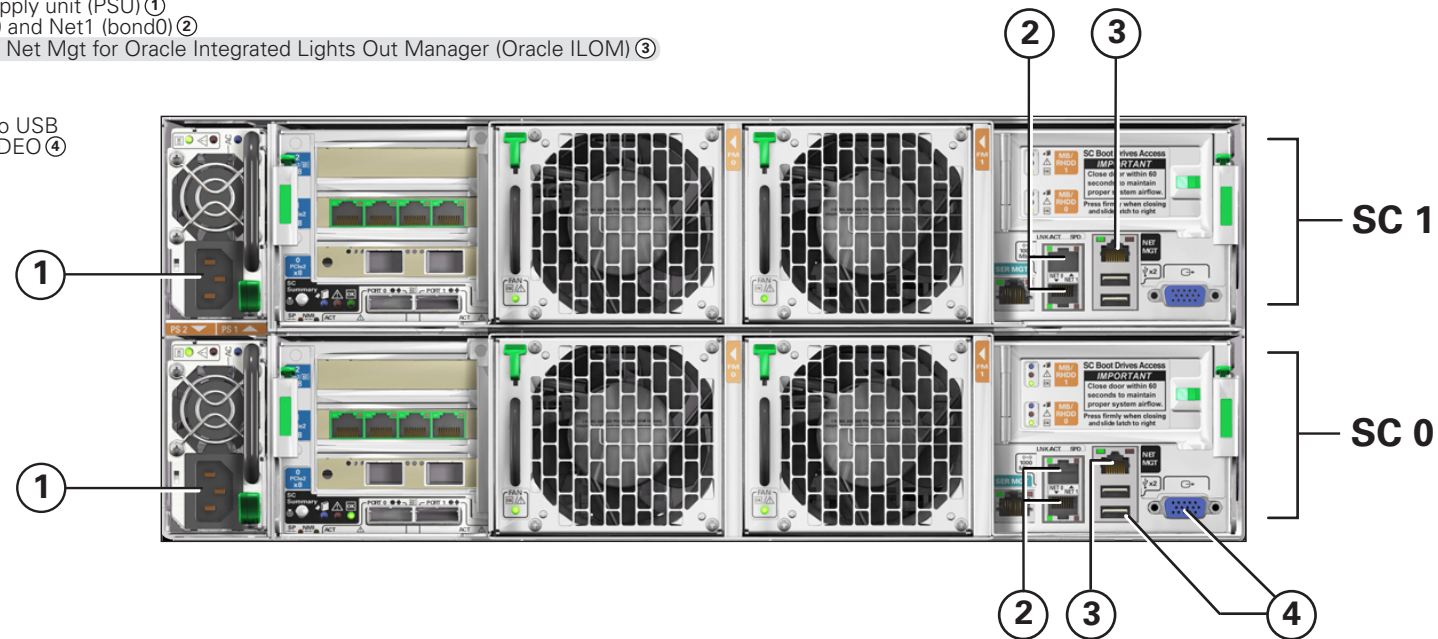
1 Connect the Cables

On both system controllers, connect:

- Power to the power supply unit (PSU) ①
- 1 GbE network to Net0 and Net1 (bond0) ②
- (Optional) Ethernet to Net Mgt for Oracle Integrated Lights Out Manager (Oracle ILOM) ③

On SC0 **only**, connect:

- Keyboard and mouse to USB and video display to VIDEO ④

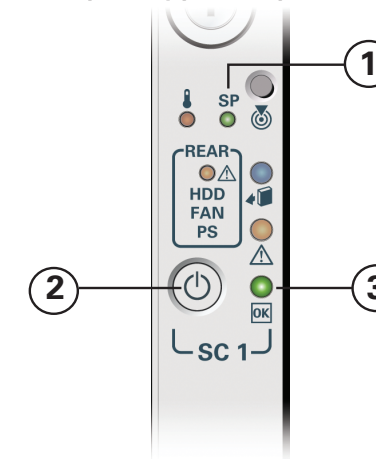


2 Start Up the Systems

Note: After connecting the power cords in Step 1, the green SP OK LED ① blinks for a few minutes, then turns steady ON.

- After the green SP OK LED is steady ON ①, push the power button ② on each SC.
- Wait for the green Power OK LED ③ to turn steady ON. The Power OK LED might blink for several minutes.

Do not repeatedly push the power buttons.



3 Log in to the Console and Configure the Network

Configuring the network enables you to use `scp` to copy files to Oracle Database Appliance.

- Log in to the console as `root` with the password `welcome1`.
- Run the following command and complete the dialog as shown below.
Replace the network values in the display with the values from your network. Consult your network administrator for details if necessary.

```
[root@oak1]# /opt/oracle/oak/bin/oakcli
configure firstnet
Select the interface to configure
network on [bond0 bond1 bond2
xbond0]:bond0
Configure DHCP on bond0?(yes/no):no
INFO: Static configuration selected
Enter the IP address to
configure:192.0.2.2
Enter the netmask address to
configure:255.255.255.0
Enter the gateway address to
configure:192.0.2.1
Plumbing the IPs now
Restarting the network
.....
```

4 Download Oracle Database Appliance End-User Bundle

- From a browser on an external client, log on to My Oracle Support. Identify the latest software version by reading the following note:
<https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=888888.1>
- Use `oakcli show version -detail` to determine if your version is current. If your version is out of date, then update your base image as described in the following note:
<https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=888888.1>
- Download the end-user bundle zip file from this URL:
<https://updates.oracle.com/download/12978712.html>
- Use `scp` to copy the Oracle Database Appliance End-User Bundle to a location on SC0 (for example, to `/tmp`).
- (Optional) Copy the configuration file created by Oracle Appliance Manager Configurator to a location on SC0 (for example, to `/tmp`).

Note: Refer to the following note for step-by-step instructions about end-user deployment:
<https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=1373617.1>

5 Unpack Oracle Database Appliance End-User Bundle

Use the `oakcli unpack -package` command. For example, at the `[root@oak1]#` prompt, type:
`/opt/oracle/oak/bin/oakcli unpack -package /tmp/p12978712_xxxxx_Linux-x86-64.zip`

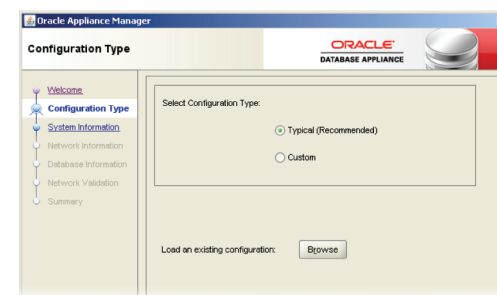
Typical and Custom Installations

The Configuration Type window enables you to select a Typical or a Custom Configuration. Selecting **Custom** enables you to:

- Configure NTP servers (the default is Cluster Time Synchronization Service)
- Configure and set up Oracle ILOM
- Specify additional network interfaces (two additional bonded 1 Gb interfaces, one additional 10 Gb interface)
- Configure Oracle Auto Service Request
- Resize the `/cloudfs` file system (the default is 50 Gb)

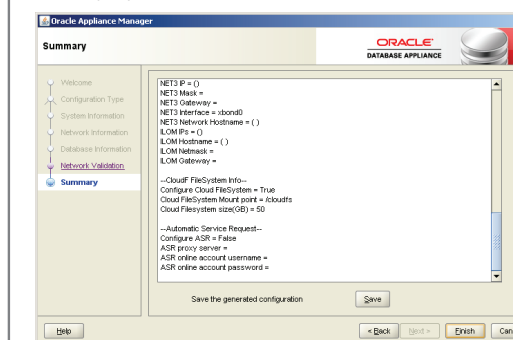
6 Deploy the Oracle Software

- Type `startx` to start X Window System.
- Enter the following command:
`[root@oak1]# /opt/oracle/oak/bin/oakcli deploy`
 - The Oracle Appliance Manager Welcome Window opens.
 - (Optional) If you saved a configuration file in Step 4, then click **Browse** to load the file.
 - Click **Next**.
- The Configuration Type window opens. Select **Typical** or **Custom**, and click **Next**.
- Enter the requested information as the screens appear.



7 Click Finish to Begin Installation When the Configuration Information Is Complete

The deployment takes about one hour to finish.



For more information about Oracle Database Appliance, go to Oracle Technology Network:
<http://www.oracle.com/technetwork/server-storage/engineered-systems/database-appliance/index.html>

For more information about deployment, go to:
<http://www.oracle.com/pls/topic/lookup?ctx=dba21>

You can also scan the Quick Response Code with your mobile device to read the documentation.



Hardware and Software
Engineered to Work Together

Oracle Database Appliance Virtualized Platform Setup

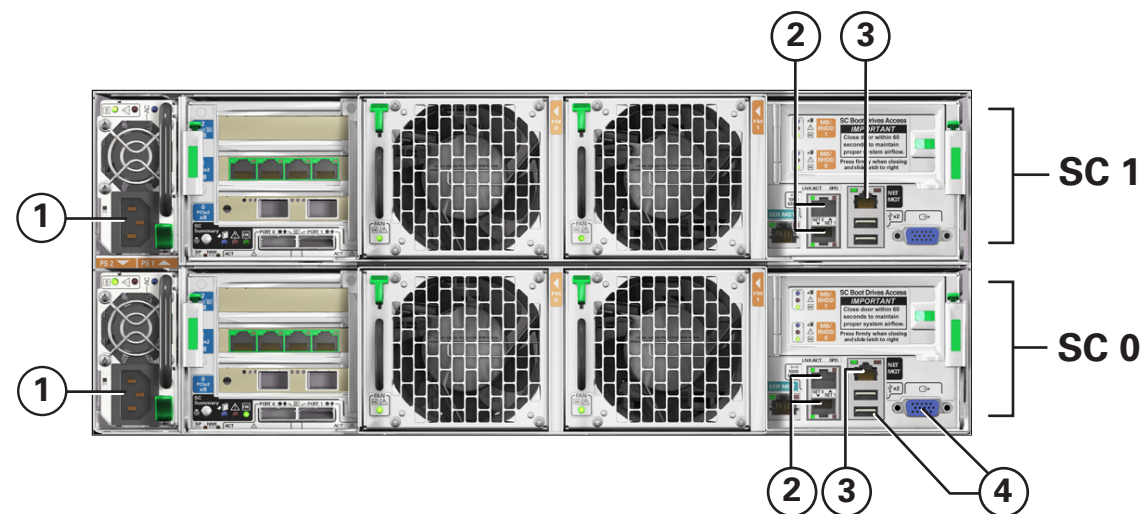
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On SC0 only, connect:

- Keyboard and mouse to USB and video display to VIDEO ④

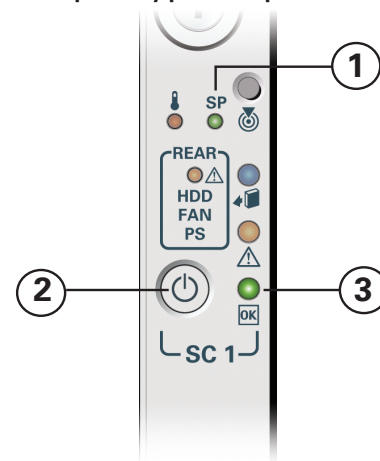


2 Start Up the Systems

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3 Check that Oracle Virtual Machine Image is Installed

- Log in to dom0 as **root** with the password **welcome1**.
- Confirm that you have Oracle Virtual Machine image for Oracle Database Appliance installed using **xm list** command.

```
oak1 login: root
Password:
Warning: making manual modifications
in the management domain might cause
inconsistencies between Oracle VM Manager
and the server.
[root@oak1 ~]# xm list
   Name ID   Mem VCPUs State Time(s)
Domain-0 0 2039 24 r----- 496.1
[root@oak1 ~]#
```

- If the command does not include **Domain-0** in the Name column or fails with any other error, then you need to install the Oracle Virtual Machine image.

Note: Refer to the following note for step-by-step instructions to install Oracle Virtual Machine image:

<https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=1520579.1>

4 Configure the Network

Configuring the network enables you to use **scp** to copy files to Oracle Database Appliance.

- Log in to dom0 as **root** with the password **welcome1**.
- Configure the network using **/opt/oracle/oak/bin/oakcli configure firstnet** command.
- Select the Global option and then enter domain name, DNS server(s), host name(s), network interface, IP address for node(s), netmask and gateway address when prompted.

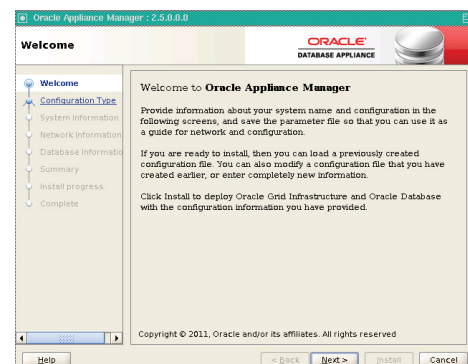
5 Deploy ODA_BASE

- Download ODA_BASE template from My Oracle Support and copy the template to the **/OVS** directory on dom0.
- Deploy ODA_BASE using **/opt/oracle/oak/bin/oakcli deploy oda_base** command.
- When prompted for Location, enter the full path name for the ODA_BASE template you downloaded and copied, for example **/OVS/templateBuild-2013-01-31.tar.gz**
- For core licensing option, enter a value from 1 through 6.

Note: Download the template for ODA_BASE from: <https://updates.oracle.com/download/16186172.html>

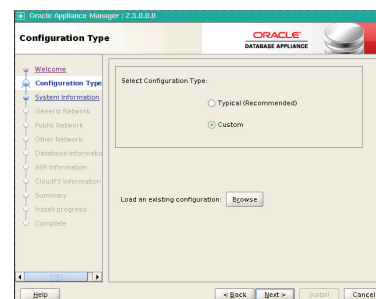
6 Deploy the Oracle Software on ODA_BASE

- Connect to dom1 using VNC with dom0 as hostname and Port as 5900.
- Type **startx** to start X-Windows session.
- Enter the following command: **/opt/oracle/oak/bin/oakcli deploy**
- The Oracle Appliance Manager Welcome window opens.
- Click **Next**.



7 Deploy the Oracle Software on ODA_BASE, Continued

- The Configuration Type window opens. Select **Typical** or **Custom**, and click **Next**.
- Enter the requested information on the remaining windows.

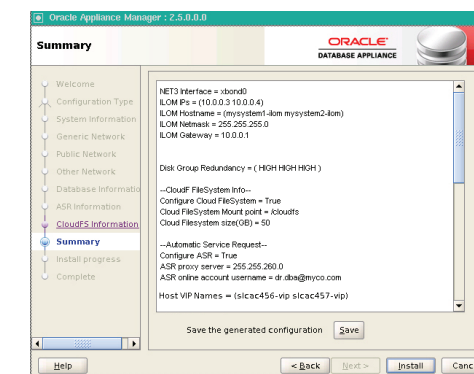


Note: Select **Custom** to configure options that default in **Typical** configurations, such as:

- Normal disk redundancy
- NTP servers
- Oracle ILOM
- Additional network interfaces
- Oracle Auto Service Requests (ASR)
- Size of the **/cloudfs** file system (default is 50Gb)

8 Click Install to Begin Installation When the Configuration Information is Complete

The deployment takes about one hour to finish.



For more information about Oracle Database Appliance, go to Oracle Technology Network: <http://www.oracle.com/technetwork/server-storage/engineered-systems/database-appliance/index.html>

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