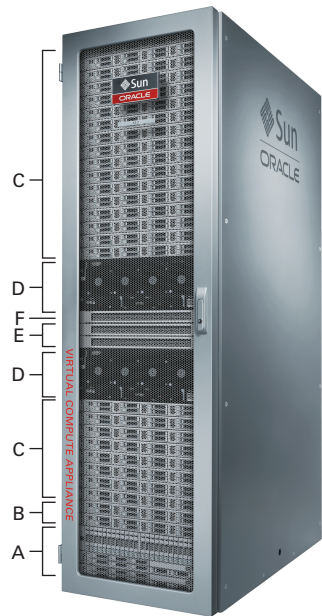


Oracle Virtual Compute Appliance Quick Start Guide (part 1)



- Appliance Components
- A ZFS Storage Appliance
 - B Management Nodes (2)
 - C Compute Nodes (up to 25)
 - D F1-15 Director Switches (2)
 - E NM2-36P InfiniBand Switches (2)
 - F ES1-24 Ethernet Switch A|B

Verify Installation Requirements

Space Requirements

A Receiving and unpacking:

	Packaged Base Rack with Shipping Pallet	Fully Populated Base Rack
Height	2159mm (85 in)	1998mm (78.66 in)
Width	1219mm (48 in)	600mm (23.62 in)
Depth	1575mm (62 in)	1200mm (47.24 in)
Weight	996kg (2197 lbs)	894kg (1972 lbs)

Note: Allow enough space to remove the shipping cartons. The minimum required depth for roll-off is 4.5m (15ft). Refer to the Sun Rack II Unpacking Guide (820-5210) included with the packaging for further details.

C Access route to installation site:

	With Shipping Pallet	Without Shipping Pallet
Minimum door height	2184mm (86 in)	2040mm (80.32 in)
Minimum door width	1220mm (48 in)	600mm (23.62 in)
Minimum elevator depth	1575mm (62 in)	1200mm (47.24 in)
Maximum incline	6 degrees	6 degrees
Loading capacity (elevator, pallet jack, floor)	1134kg (2500 lbs)	1134kg (2500 lbs)

B Maintenance clearance:

	Access Requirement
Rear maintenance	914mm (36 in)
Front Maintenance	914mm (36 in)
Top Maintenance	914mm (36 in)
Side panel removal	676mm (26.6 in)

Data Center Configuration

A Oracle recommends using raised flooring, able to support the total weight of the system including power distribution units (PDUs): 1005kg (2215lbs).

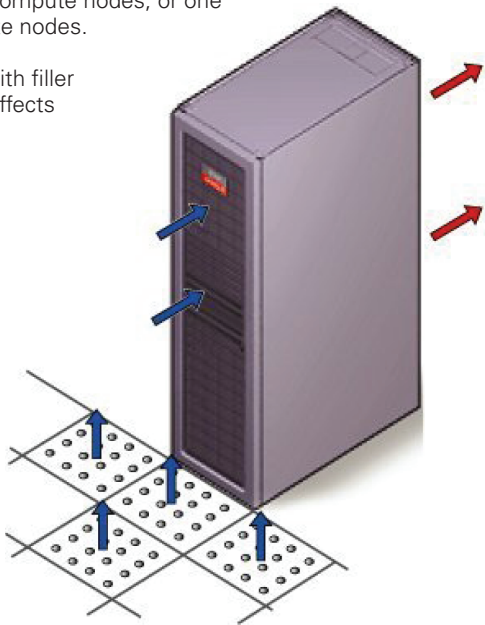
B Temperature, humidity and altitude:

	Operating Requirement	Non-operating Requirement	Optimum
Temperature	5°C to 32° (41°F to 89.6°F)	-40°C to 70°C (-40°F to 158°F)	21°C to 23°C (70°F to 74°F)
Relative humidity	10-90 percent, non-condensing	93 percent maximum	45-50 percent, non-condensing
Altitude	3048m (10000ft) maximum	12000m (40000ft)	ambient temperature is reduced by 1°C per 300m above 900m altitude above sea level

C Provide adequate ventilation and cooling:

- Make sure that the capacity of the air conditioning equipment is sufficient for the new system hardware.
- Respect the maintenance clearance at the front and back of the system for optimum airflow. The air intake is at the front, and the air outlet is at the back.
- Install perforated floor tiles (approximately 400 CFM/tile) in front of the rack for cold air intake. Use four tiles for a fully populated rack, three tiles for 8-16 compute nodes, or one tile for 8 or fewer compute nodes.

- Cover empty rack units with filler panels to avoid adverse effects on airflow and cooling.



Power Requirements

Each rack has two preinstalled power distribution units (PDUs). The PDUs accept different power sources. You must specify the type of PDU that is correct for your data center.

- Verify that the PDUs installed are correct for your data center power source: 22 or 24kVA for low or high voltage.
- PDU power cords are 4m (13.1ft) long, and up to 1.5m (4.9ft) is routed within the rack cabinet. AC power receptacles must be within 2m (6.6ft) of the rack.
- Use dedicated AC breaker panels for all power circuits that supply power to the PDU.
- Use dedicated AC breaker panels for all power circuits that supply power to the compute nodes. Compute nodes require electrical circuits to be grounded to the Earth.

Note: Circuit breakers are supplied by the customer. One circuit breaker is required for each power cord.

- In addition to circuit breakers, provide a stable power source, such as an uninterruptable power supply (UPS) to reduce the possibility of component failures.
- Racks are shipped with grounding-type power cords (three-wire). Always connect the cords to grounded power outlets. Verify the correct grounding method for your location.

Network Requirements

- Four ports (2x2) on redundant next-layer switches in the data center must be reserved to connect the 10GbE public network ports of the IO Director switches.
- A terminal or workstation with a web browser must be connected to the management network.
- Three IP addresses in the public network must be reserved for management node configuration.
- The following network configuration details are required:

	Your Entry	Description
Domain Name		Company network domain
Region		Name of the country where the system is installed
Time Zone		Time zone where the system resides
DNS IP address		IP address of one to four Domain Name Servers
NTP server IP address		IP address of one to four Network Time Protocol Servers
Default Gateway		IP address of the default gateway in your company network
Management Node 1		IP address of the first management node in your company network
Management Node 2		IP address of the second management node in your company network
Management Virtual IP		IP address providing access to the master management node

Note: All internal rack connections are pre-cabled, including non-populated rack units. Cabling should not be modified in any way.

Oracle Virtual Compute Appliance Quick Start Guide (part 1)

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



1

Prepare Installation Site

A

Review the safety guidelines. Refer to Section 4.2.2. "Review Safety Guidelines" in the *Oracle Virtual Compute Appliance Installation Guide*.

B

Prepare the location where the Oracle Virtual Compute Appliance will be installed.

- Thoroughly clean and vacuum the area in preparation for the installation.
- Note problems or peculiarities at the site that require special equipment.
- Confirm that space, flooring, power supply and climate control meet all requirements. (See **Verify Installation Requirements**.)
- Operate the air conditioning system for 48 hours to bring the room conditions to the appropriate level.
- Ensure that all tools required for unpacking and installation are present. For a list of required tools, refer to Section 4.2.4. "Tools Required for Unpacking and Installation" in the *Oracle Virtual Compute Appliance Installation Guide*.

C

Unpack the Oracle Virtual Compute Appliance.

- Refer to the *Sun Rack II Unpacking Guide (820-5210)* included with the packaging when unpacking the Oracle Virtual Compute Appliance.
- Follow local laws and guidelines to recycle the packaging properly.
- Save the mounting brackets used to secure the rack to the shipping pallet. You can use these mounting brackets to secure the rack permanently to the installation site floor.
- Verify that the hardware configuration corresponds to your order. Refer to the Customer Information Sheet (CIS) on the side of the packaging.

D

Move the Oracle Virtual Compute Appliance to the installation site.

- Ensure that the rack doors are closed and secured.
- Ensure that the leveling and stabilizing feet on the rack are raised and out of the way.
- Push the system from the back of the rack to the installation site. It is preferred that two people push the rack, and a third person in front helps to guide the rack.
- Steer the rack by moving the rear casters; the front casters do not pivot.

E

When the rack is at the installation site, verify that no components or connections have become dislodged or disconnected during transport. If necessary, re-attach components and cables properly.

Install Hardware in Allocated Space

2

Stabilize the appliance

A

Locate the four leveling feet at the bottom corners of the rack.

B

Lower the leveling feet to the floor using the SW 12mm wrench. The four feet should support the full rack weight.

3

Secure the appliance to the installation site floor

A

Obtain four bolts and washers that are appropriate for the floor type and fit through the 10mm bolt holes in the mounting brackets (1).

B

Drill four holes into the floor according to the hole pattern.

C

Optionally, if you plan to route data or power cables through the bottom of the rack, make a rectangular opening (2) in the floor, below the rear portion of the rack, between the two rear casters and behind the RETMA rails.

D

Open the front and rear rack doors. Using a 6mm Allen wrench, attach the mounting brackets to the rack.

E

Using appropriate bolts and washers (not supplied), permanently mount the rack to the floor.

F

Firmly tighten all bolts that secure the mounting brackets to the rack and the floor.

4

Attach a ground cable (optional)

A

Ensure that the ground cable makes metal-to-metal contact with the attachment point. Remove paint or coating if necessary.

B

Attach the ground cable to one of the attachment points at the bottom rear of the system frame.

Note:

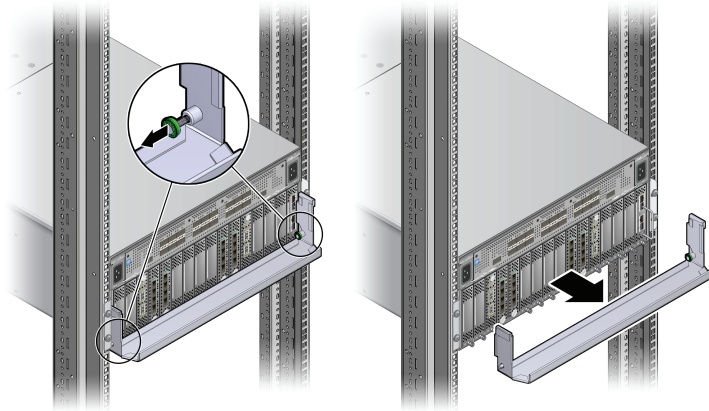
An additional chassis earth ground cable (not supplied) enables electrical current leakage to dissipate more efficiently.

Hardware and Software, Engineered to Work Together

Oracle Virtual Compute Appliance Quick Start Guide (part 2)

5 Remove the F1-15 Director Switch Bracket

- Locate the shipping bracket at the rear of both F1-15 Director Switches.
- Pull the tabs on the left and right hand side towards the center to unlock the bracket.



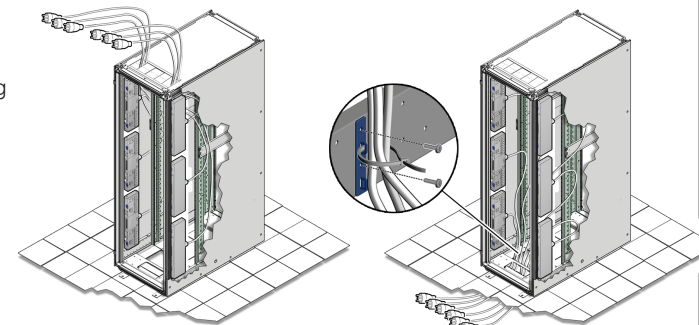
- Carefully pull the bracket away from both F1-15 Director Switches, and out of the rack.

Power On Appliance for the First Time

6 Connect the Appliance to the Power Source

- Review the safety guidelines. Refer to Section 5.3.1. "Review Safety Guidelines" in the *Oracle Compute Appliance Installation Guide*.
- Visually inspect the appliance.
 - Check the rack for damage and loose or missing screws.
 - Check that cables are securely connected.
 - Verify that power cables with appropriate connectors for your power source have been supplied.
 - Check the floor tile arrangement for cable access and airflow.
 - Check the airflow that leads in to the front of the system. (See **Verify Installation Requirements.**)

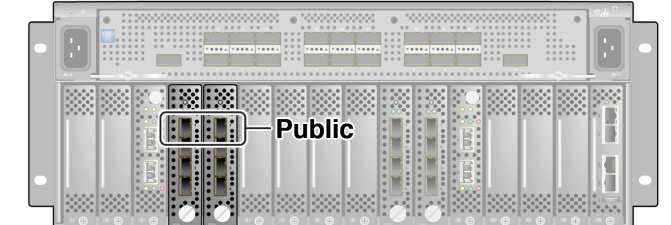
- Connect the power cords.
 - Open the rear door.
 - Remove the cable ties from the power cords.
 - Route the power cords to the facility receptacles either above the rack or below the flooring.



- Secure the power cords in bundles.
- Plug the power distribution unit (PDU) power cords into the facility receptacles.

7 Connect the appliance to the network

- Connect two 10GbE ports labeled 'Public' on both IO Director Switches to your (next-layer) data center switches.

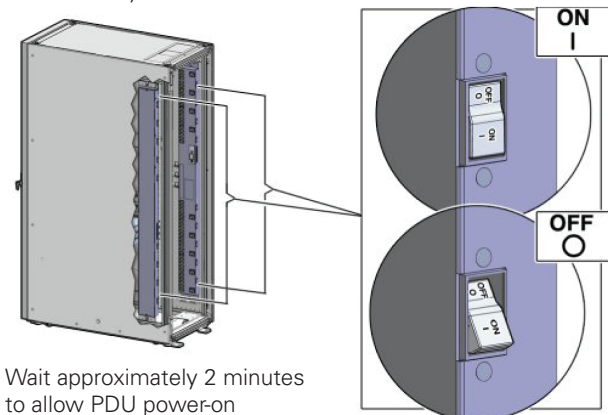


- Connect a workstation with a web browser directly to the management network using the supplied blue ethernet cable connected to port 24 of an Oracle ES1-24 switch.
- Configure the workstation's wired network connection to use the IP address **192.168.4.254**.

Note: For advanced network configuration options, refer to the Oracle Virtual Compute Appliance Administrator's Guide.

8 Power on the appliance

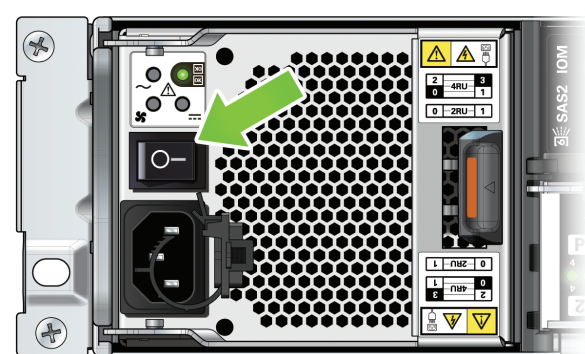
- Switch on all PDU circuit breakers located on the rear of the main PDU inside the rack. The circuit breakers are on the rear of the system cabinet.



- Wait approximately 2 minutes to allow PDU power-on configuration to complete.

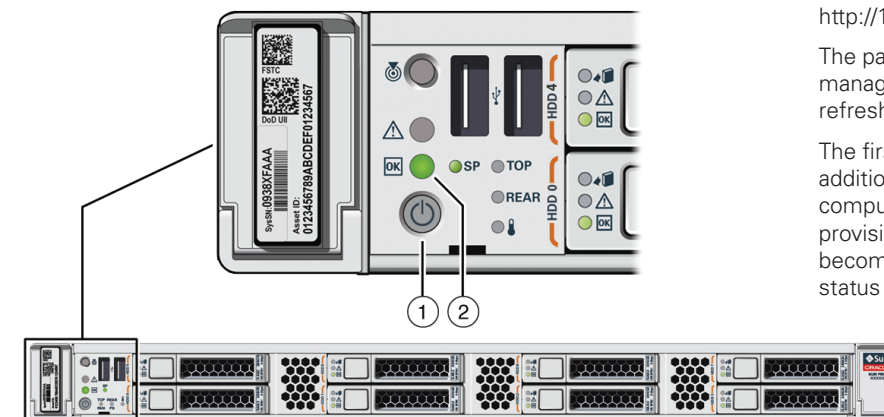
Note: Appliance infrastructure components without power switches are powered on together with the PDUs.

- Make sure that the circuit breakers on the Sun ZFS Storage Appliance are in the On ("I") position.



Note: The image shows the circuit breaker on the left power supply. The circuit breaker of the right power supply must also be switched on.

- Press the Power button (1) located on the front of the first management node (in rack unit 5).



- Wait approximately 5 minutes to allow the management system to power on completely. When complete, the Power/OK LED (2) illuminates and remains a steady green.

- On the workstation, browse to the Oracle Virtual Compute Appliance Dashboard at:

<http://192.168.4.3>.

The page loads as soon as the web server on the management node is running. It has a built-in 20 second refresh interval.

The first management node automatically powers on additional components and starts the provisioning of the compute nodes. Once the system has discovered and provisioned at least one compute node, the web interface becomes available. As compute nodes are provisioned, their status changes to green, indicating that they are ready.

Note: The provisioning of a full base rack takes approximately one hour, starting from the moment when the first management node is powered on.

Oracle Virtual Compute Appliance Quick Start Guide (part 2)

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



Configure Appliance

9

Log into the Dashboard

A

Using the browser on the workstation, connect to the Oracle Virtual Compute Appliance Dashboard at <http://192.168.4.3>.

B

Log in to the Dashboard. The default user name is *ovcaadmin*; the password is *Welcome1*.

C

Wait for the Hardware View tab to indicate that all components are up and running and all compute nodes have completed the provisioning process.

10

Configure System Parameters

A

Using the Dashboard, configure the system environment parameters, including: input locale, domain name, time zone, NTP and DNS servers.

B

For security reasons, always replace default system passwords. For detailed instructions, refer to the *Oracle Virtual Compute Appliance Administrator's Guide*.

C

Go to the Network Setup tab and replace the default IP configuration of the management nodes with the reserved IP addresses in your data center network. Enter the default gateway of your data center network.

D

Click OK. During network reconfiguration, connectivity is lost temporarily.

E

Reconnect to the Oracle Virtual Compute Appliance Dashboard at the new virtual IP address of the management node cluster: https://<virtual_ip>:7002/ovca.

F

Download the latest Oracle Virtual Compute Appliance software package from My Oracle Support (<https://support.oracle.com>).

G

Complete the configuration process. For detailed instructions, refer to the *Oracle Virtual Compute Appliance Administrator's Guide*.

11

What's Next?

A

Additional Resources. For more detailed instructions and information about using, maintaining and expanding the system, refer to these additional resources:

- *Oracle Virtual Compute Appliance Installation Guide*
- *Oracle Virtual Compute Appliance Safety and Compliance Guide*
- *Oracle Virtual Compute Appliance Administrator's Guide*
- *Oracle Virtual Compute Appliance Expansion Node Setup Poster*
- *Oracle Virtual Compute Appliance Release Notes*

B

Oracle Technology Network. For up-to-date product information, downloads and documentation, visit the Oracle Virtual Compute Appliance pages on the Oracle Technology Network. Enter this URL: <http://www.oracle.com/technetwork/server-storage/virtual-compute-appliance/>, or scan the QR code.

C

Access to Oracle Support. Oracle customers have access to electronic support through My Oracle Support. For information, visit: <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit: <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Quick Response Code.

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