

Solution Engineer Assisted Workshop Day

Lab 2: Creating Compute Instances on OCC

ORACLE CLOUD INFRASTRUCTURE | JANUARY 2019





Disclaimer

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Table of Contents

Practice 2-1: Creating a Basic Compute Instance

Practice 2-2: Connecting to Your Instance

Demonstration: Creating a Compute Instance from a Custom Image

Practice 2-1: Creating a Basic Compute Instance

Overview

In this exercise, you will initialize a minimally configured compute instance on OCC.

Assumptions

Note: Some of the user interfaces may look different than the screenshots included in the instructions, however students should still use the written instructions to complete the hands-on labs.

Tasks

1. From your My Services console, open Compute Classic.
2. Click the “Create Instance” button.
3. In the QuickStarts dialog, give your instance a name and select a deployment OS (either Oracle Linux or Ubuntu).

ORACLE Cloud My Services

Create Instance

QuickStarts

Start with a common configuration or click Customize to choose from all available options.

Instance Name: first-instance

Oracle Linux

- Oracle Linux 7.2 UEKR4
- 1 OCPUs
- 7.5GB Memory
- 128GB Storage

Canonical Ubuntu Server

- Ubuntu Server 16.04 amd64
- 1 OCPUs
- 7.5GB Memory
- 128GB Storage

Microsoft Windows Server

- Windows Server 2012 R2 SE
- 2 OCPUs
- 15GB Memory
- 128GB Storage

Show All Images

IP Network: default (192.168.1.0/24)

Select SSH Key

Your instance will be secured using an SSH key pair. Download the generated private key and save it in a safe place (as it cannot be recovered if lost) to use when you connect to your instance or select an existing SSH key from the list.

SSH Key: Enter new SSH key name | first-instance

Download

Create

first-instance.key

Show All

4. Download the SSH key file that will be used to access the instance when it is running.
5. Click Create.
6. It might take a few minutes for the instance to provision. While it's starting, let's locate our ssh client.

For Mac and Linux, just open your terminal.

If you are on Windows, open Powershell or download and install PuTTY from the internet.

Practice 2-2: Connecting to Your Instance

Overview

In this exercise, you will use the SSH protocol to securely connect to your running Compute instance.

Prerequisites

1. The path to your **private key** file (check your downloads folder)
2. A ssh client (Terminal, Powershell, PuTTY)

Tasks

1. In the **Instances** tab of your Compute Classic console, locate the name of the instance you just provisioned.
2. Open the menu on the right and select **View**.

ORACLE Cloud My Services

Dashboard Users ?

Compute Classic Site: 610640135 - uscom-central-1 Visualization

Instances Network Storage Orchestrations Images

Instances ▾ As of 12:18:18 AM

14 instances 8 OCPUs 67.5GB memory 831GB volume size in use

A Compute Classic instance is a virtual machine running a specific operating system, with the CPU and memory resources that you specify. [Learn more...](#)

Search... Category: All Show: All Create Instance

Name	Status	OCPUs	Memory	Volumes	Public IP	Private IP
ainstance_201901282137	Running	1	7.5 GB	12 GB	129.150.116.244	10.134.67.82
b1	Running	1	7.5 GB	12 GB	129.150.173.248	10.0.1.2
b2	Running	1	7.5 GB	12 GB	129.150.174.26	10.0.1.3
b3	Running	1	7.5 GB	12 GB	129.150.93.27	10.16.132.98
b4	Running	1	7.5 GB	12 GB	129.150.95.28	10.22.35.50
demoCustomVM	Stopped	1	7.5 GB			0.0.0.0
demoCustomVM_20190130132830	Stopped	1	7.5 GB			0.0.0.0
demoCustomVM_20190130133056	Stopped	1	7.5 GB			0.0.0.0
ExcuseME_20190129160137	Stopped	1	7.5 GB			0.0.0.0
first-instance	Running	1	7.5 GB	128 GB	129.150.183.3	192.168.1.4
javascript:void(0);			15 GB	631 GB	129.150.205.141	10.28.227.206

View
Connect
Start
Reboot
Shut Down
Create Snapshot

3. Locate the public IP address and put it somewhere you can find it later.

The screenshot shows the Oracle Cloud My Services console. The top navigation bar includes the Oracle logo, 'Cloud My Services', and links to Dashboard, Users, and a help icon. The main header is 'Instance first-instance'. Below this, the breadcrumb is 'Instances > first-instance'. The left sidebar has 'Overview' selected, with links to 'Logs' and 'Screen Captures'. The main content area displays the details for 'Instance first-instance' as of 12:18:18 AM. The details include:

- Name: /Compute-610640135/kylegriffin0@gmail.com/first-instance/c63e7dbc-3bbe-42c2-8355-67d420236e18
- Label: first-instance
- Status: Running (Since 33 minutes ago.)
- Shape: oc3
- Image: /oracle/public/OL_7.2_UEKR4_x86_64
- Orchestration: /Compute-610640135/kylegriffin0@gmail.com/first-instance
- OCPUs: 1
- Memory: 7.5 GB
- Hostname: compute-610640135.oraclecloud.internal
- Domain Name: compute-610640135.oraclecloud.internal
- Public IP Address: 129.150.183.3
- Private IP Address: 192.168.1.4
- Tags: (empty)
- Availability Domain: uscom-central-1a

Below the details, there are two sections:

- Storage Volumes:** A table with columns Name, Description, Status, Size, and Disk #. It shows one volume named 'first-instance_storage_1' with a size of 128 GB and status 'Online'. An 'Attach Storage Volume' button is in the top right.
- IP Network Interfaces:** A table with columns vNIC, IP Network, vNICsets, Static IP, MAC Address, Public IP, and Cloud IP. It is currently empty.

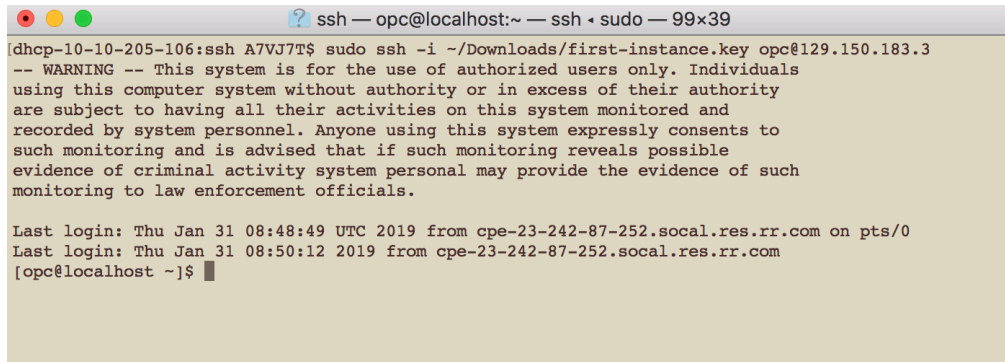
4. In your SSH client, we are going to create a new connection. We'll need the IP address to specify the machine we are connecting to. If we are in terminal, the command is as follows:

```
$ ssh -i </path/privateKey> opc@<PublicIP_Address>
```

Depending on the OS you chose, “opc” should be replaced with “ubuntu” to match the OS’ default user.

In PuTTY, create a new connection using your private key and IP address. Your username should be either opc or ubuntu. No password is required.

5. If you SSH'd in successfully, you should see a prompt with the username you entered. From this point on, you can install and run software however you'd like.

A terminal window titled 'ssh — opc@localhost:~ — ssh • sudo — 99x39'. The prompt is 'dhcp-10-10-205-106:ssh A7VJ7T\$'. The user enters 'sudo ssh -i ~/Downloads/first-instance.key opc@129.150.183.3'. The terminal displays a warning message about system monitoring, followed by login information for 'opc' on 'pts/0'. The prompt changes to '[opc@localhost ~]\$'.

Demonstration: Creating a Compute Instance from a Custom Image

Instructions

1. Download or locate the VM you wish to deploy.
 2. Install and open VirtualBox.
 3. Under the File Menu in VB, click Import Appliance.
 4. Select the file containing your virtual image and press Import.
- (In a practical deployment we would start the VM locally and configure the image to communicate with our network – details on how to do this can be found in the documentation below)
5. Open your terminal and cd into your VirtualBox Virtual Machines folder (usually located in your home directory)
 6. In order to deploy on OCC, we must first convert the vdmk disk file located in our current directory into a RAW disk file using VirtualBox's CLI, and then zip it into a tar.gz file. Supporting documentation is located here:

https://www.oracle.com/webfolder/technetwork/tutorials/obe/cloud/compute-iaas/creating_a_custom_ol_machine_image/creating_a_custom_ol_machine_image.html#section11

To convert to RAW, copy and paste in your terminal:

```
VBoxManage internalcommands converttoraw /path/to/myVM.vdmk /path/to/rawdisk.img
```

Then zip the newly created image using for deployment on OCC by entering:

```
tar -czSf customVM.tar.gz rawdisk.img
```

7. In your Compute console, locate the "Images" subtab.
8. Click on "Upload Images".
9. You should be prompted to log in again as a security measure. Enter the password for a user authorized to use Object Storage Classic.
10. In Object Storage, click browse and locate your newly created customVM.tar.gz file, and then click upload.
11. Once the image is finished uploading, select Associate Image, create a name for your image and select the file you just uploaded.
12. Now, in the Create Instance dialog, under the Private Images tab, you should be able to select the VM you successfully associated.