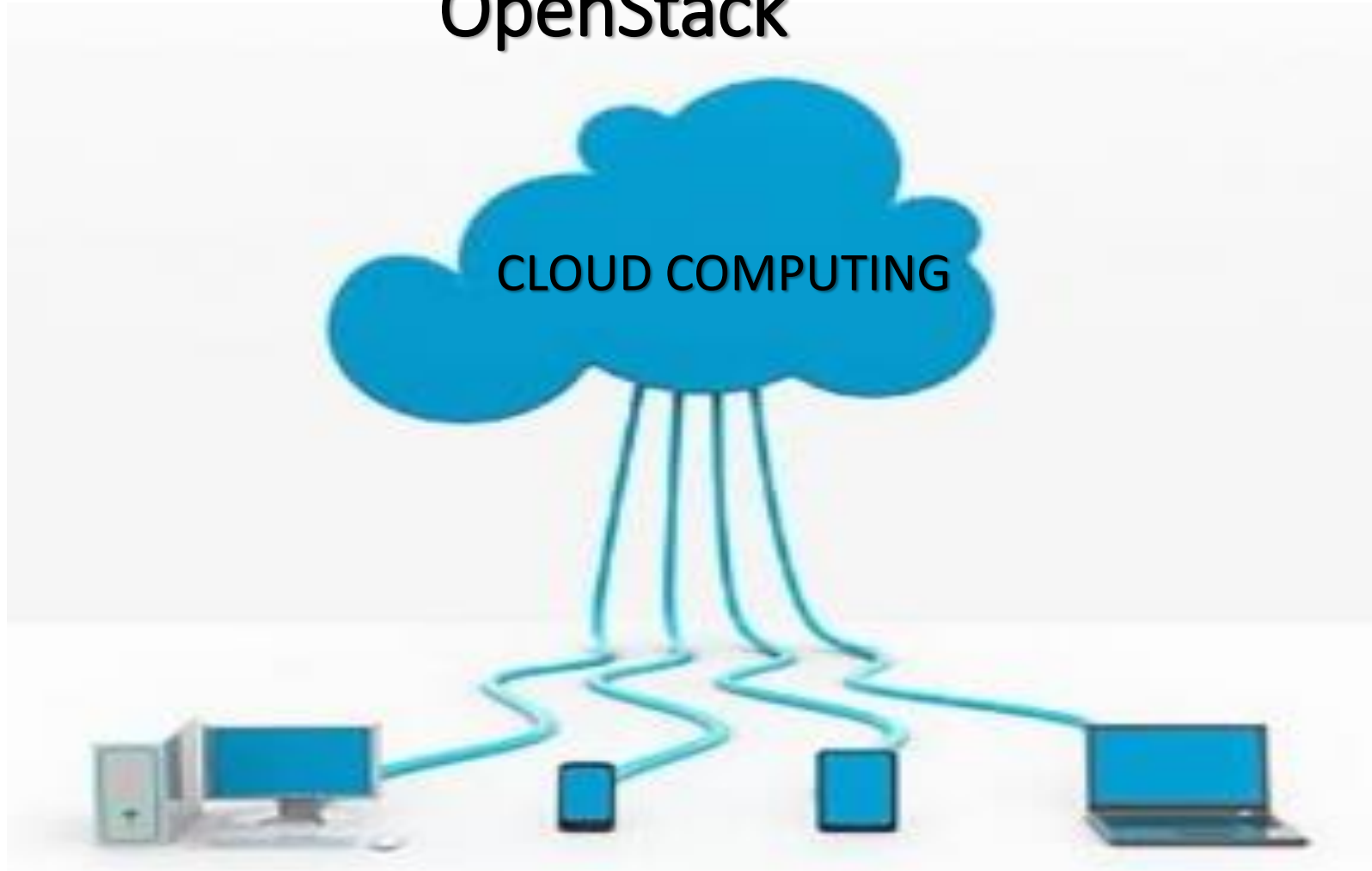
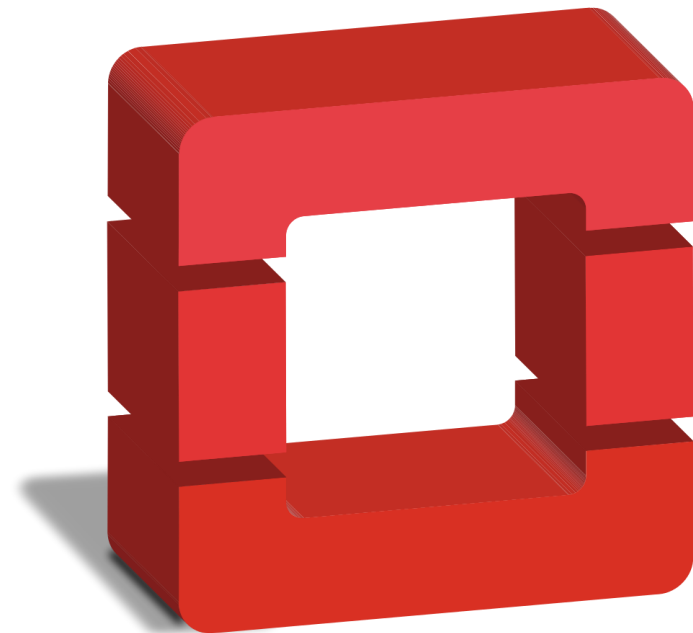


INFO 3606

Lab#5

How to Create, Deploy and Launch Virtual Machines in OpenStack





openstack®

CLOUD SOFTWARE

Nova- Instance Management

- instance management component in OpenStack
- provides a way to provision compute instances (aka virtual servers), which is used to host and manage cloud computing systems.



Objectives

- Create images
- Launch an instance of an image (VM) in OpenStack

in a 
nutshell

Let's Get Started!!!



Step 1: Allocate Floating IP

1. Project -> Network -> Floating IPs

openstack

Project1- Lab3 (Edit Test)

admin

Project

API Access

Compute

Volumes

Network

Network Topology

Networks

Routers

Security Groups

Floating IPs

Identity

Project / Compute / Overview

Overview

Limit Summary

Compute

Instances

Used 1 of 10

VCPUs

Used 1 of 20

RAM

Used 128MB of 50GB

Volume

Volumes

Used 0 of 10

Volume Snapshots

Used 0 of 10

Volume Storage

Used 0B of 1000GB

Network

Floating IPs

Allocated 1 of 50

Security Groups

Used 1 of 10

Security Group Rules

Used 5 of 100

Networks

Used 1 of 100

Ports

Used 4 of 500

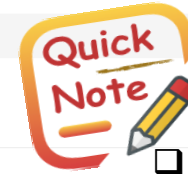
Routers

Used 1 of 10

Usage Summary

Quick Note


- ❑ Floating IP allows external access from outside networks or internet to an Openstack VM.
- ❑ If not then please manually download the file.
- ❑ It's a good idea to allocate a Floating IP for each instance you run



- ❑ Floating IP allows external access from outside networks or internet to an Openstack VM.
- ❑ If not then please manually download the file.
- ❑ It's a good idea to allocate a Floating IP for each instance you run

Step 1: Allocate Floating IP

1. Project -> Network-> Floating IPs
2. Click on Allocate IP to Project.
3. Choose **Public** Pool and hit on Allocate IP button
4. the IP address should appear in dashboard

 Project1- Lab3 (Edit Test) admin

Project

API Access

Compute

Volumes

Network

Network Topology

Networks

Routers

Security Groups

Floating IPs

Identity

Project / Network / Floating IPs

Floating IPs

Floating IP Address = Filter [Allocate IP To Project](#) [Release Floating IPs](#)

Displaying 1 item

<input type="checkbox"/>	IP Address	Description	DNS Name	DNS Domain	Mapped Fixed IP Address	Pool	Status	Actions
<input type="checkbox"/>	10.0.4.226				My Instance - Lab 4 172.16.0.211	public	Active	Disassociate

Displaying 1 item

Step 2: Create an OpenStack Image

1. Project -> Compute -> Images
2. Click on Create Image button.

The screenshot shows the OpenStack dashboard interface. The breadcrumb trail at the top indicates the path: Project / Compute / Images. The left sidebar contains a navigation menu with the following items: Project, API Access, Compute (selected), Overview, Instances, Images (highlighted), Key Pairs, Server Groups, Volumes, Network, Admin, and Identity. The main content area is titled 'Images' and includes a search bar with the placeholder text 'Click here for filters or full text search.' To the right of the search bar are two buttons: '+ Create Image' and 'Delete Images'. Below the search bar, it says 'Displaying 1 item'. A table lists the image details:

Owner	Name	Type	Status	Visibility	Protected	Disk Format	Size	
admin	razos-11.5-2-2016_64-disk	Image	Active	Public	No	QCOW2	15.55 MB	Launch

Below the table, it says 'Displaying 1 item'.

Step 2: Create an OpenStack Image

1. The Create Image prompt will appear

The screenshot shows the OpenStack dashboard interface with the 'Create Image' modal form open. The background shows the 'Images' section of the dashboard, with a table listing existing images. The modal form is titled 'Create Image' and contains the following sections:

- Image Details**: Includes a text input for 'Image Name' and a text area for 'Image Description'.
- Image Source**: Includes a 'File*' section with a 'Browse...' button and a 'Format*' dropdown menu.
- Image Requirements**: Includes a 'Kernel' dropdown menu, a 'Ramdisk' dropdown menu, an 'Architecture' text input, and two numeric input fields for 'Minimum Disk (GB)' and 'Minimum RAM (MB)', both currently set to 0.
- Image Sharing**: Includes a 'Visibility' section with buttons for 'Private', 'Shared', 'Community', and 'Public', and a 'Protected' section with 'Yes' and 'No' buttons.

At the bottom of the modal, there are three buttons: 'Cancel', '< Back', and 'Next >', followed by a blue 'Create Image' button.

Status	Visibility	Protected	Disk Format	Size	Launch
ve	Public	No	QCOW2	15.55 MB	Launch

Step 2: Create an OpenStack Image

1. For demonstration purposes, we will deploy a test image, based on a lightweight **Cirros cloud image**
2. Click on the link <http://download.cirros-cloud.net/0.3.4/> to download the image directly or downloaded locally on your machine and uploaded to OpenStack cloud.
3. You may select and download **cirros-0.3.4 – arm-initramfs** for this lab

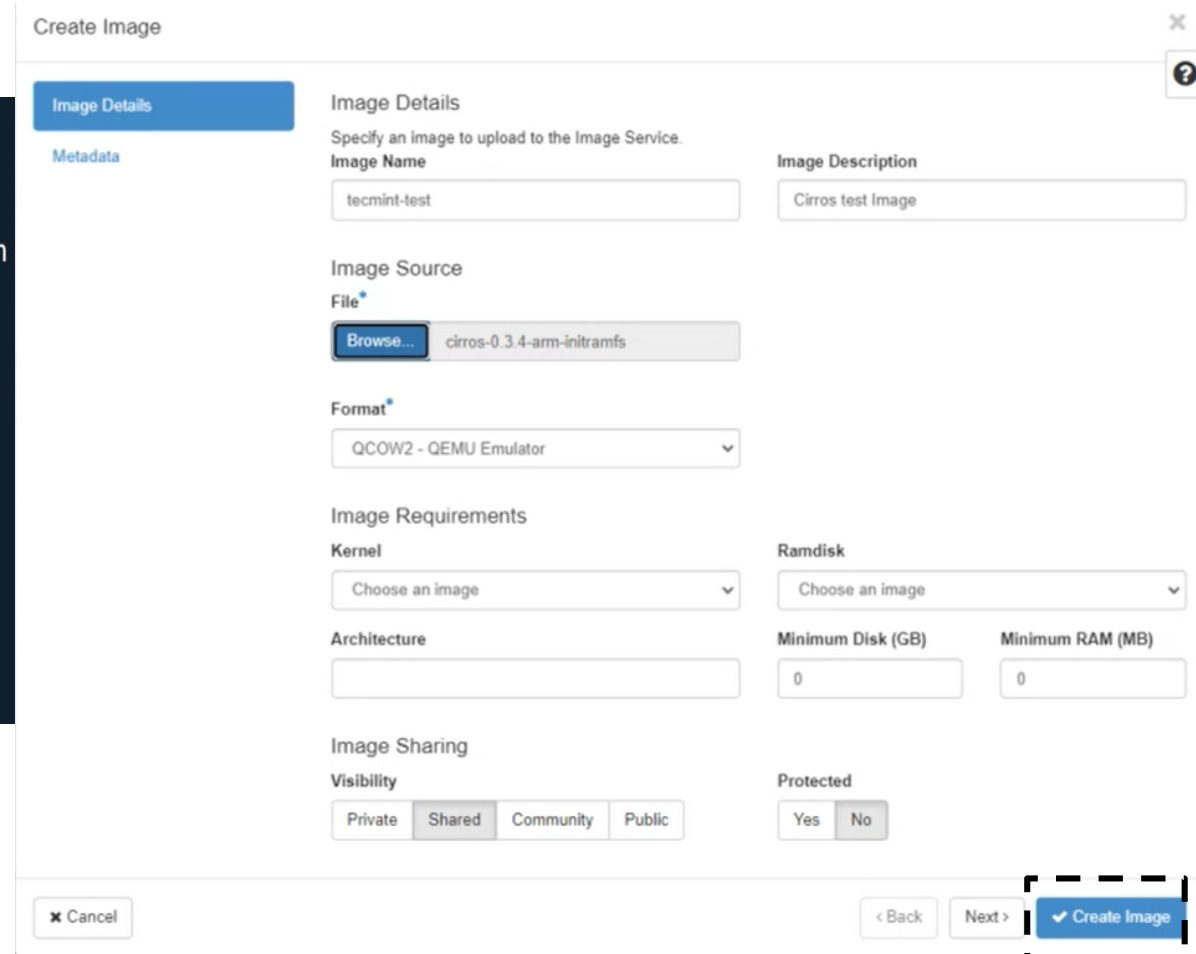
Index of /0.3.4

Name	Last modified	Size	Description
Parent Directory		-	
MD5SUMS	2015-05-07 09:49	1.5K	
buildroot_rootfs/	2015-05-07 09:49	-	
cirros-0.3.4-arm-initramfs	2015-05-07 09:48	3.3M	
cirros-0.3.4-arm-kernel	2015-05-07 09:48	3.7M	
cirros-0.3.4-arm-lxc.tar.gz	2015-05-07 09:48	3.3M	
cirros-0.3.4-arm-lxc.tar.xz	2017-11-20 07:19	2.4M	
cirros-0.3.4-arm-lxd.tar.xz	2017-11-20 07:19	568	
cirros-0.3.4-arm-rootfs.img.gz	2015-05-07 09:48	11M	
cirros-0.3.4-arm-uec.tar.gz	2015-05-07 09:48	7.0M	
cirros-0.3.4-arm-uec.tar.xz	2017-10-16 15:30	7.0M	
cirros-0.3.4-i386-disk.img	2015-05-07 09:48	12M	
cirros-0.3.4-i386-initramfs	2015-05-07 09:48	3.2M	
cirros-0.3.4-i386-kernel	2015-05-07 09:48	4.8M	
cirros-0.3.4-i386-lxc.tar.gz	2015-05-07 09:48	3.1M	
cirros-0.3.4-i386-lxc.tar.xz	2017-11-20 07:19	2.4M	
cirros-0.3.4-i386-lxd.tar.xz	2017-11-20 07:19	564	
cirros-0.3.4-i386-rootfs.img.gz	2015-05-07 09:48	11M	
cirros-0.3.4-i386-uec.tar.gz	2015-05-07 09:48	7.9M	
cirros-0.3.4-i386-uec.tar.xz	2017-10-16 15:30	7.8M	
cirros-0.3.4-powerpc-disk.img	2015-05-07 09:49	16M	
cirros-0.3.4-powerpc-initramfs	2015-05-07 09:48	3.6M	
cirros-0.3.4-powerpc-kernel	2015-05-07 09:48	25M	
cirros-0.3.4-powerpc-lxc.tar.gz	2015-05-07 09:48	3.4M	
cirros-0.3.4-powerpc-lxc.tar.xz	2017-11-20 07:19	2.4M	

Step 2: Create an OpenStack Image

1. After clicking the Create Image button, use the following settings on the image prompt
2. Then click **Create Image** when done.

```
Name: tecmint-test
Description: Cirros test image
Image Source: Image Location #Use Image File if you've downloaded the file locally on
Image Location: http://download.cirros-cloud.net/0.3.4/cirros-0.3.4-i386-disk.img
Format: QCOW2 - QEMU Emulator
Architecture: leave blank
Minimum Disk: leave blank
Minimum RAM: leave blank
Image Location: checked
Public: unchecked
Protected: unchecked
```



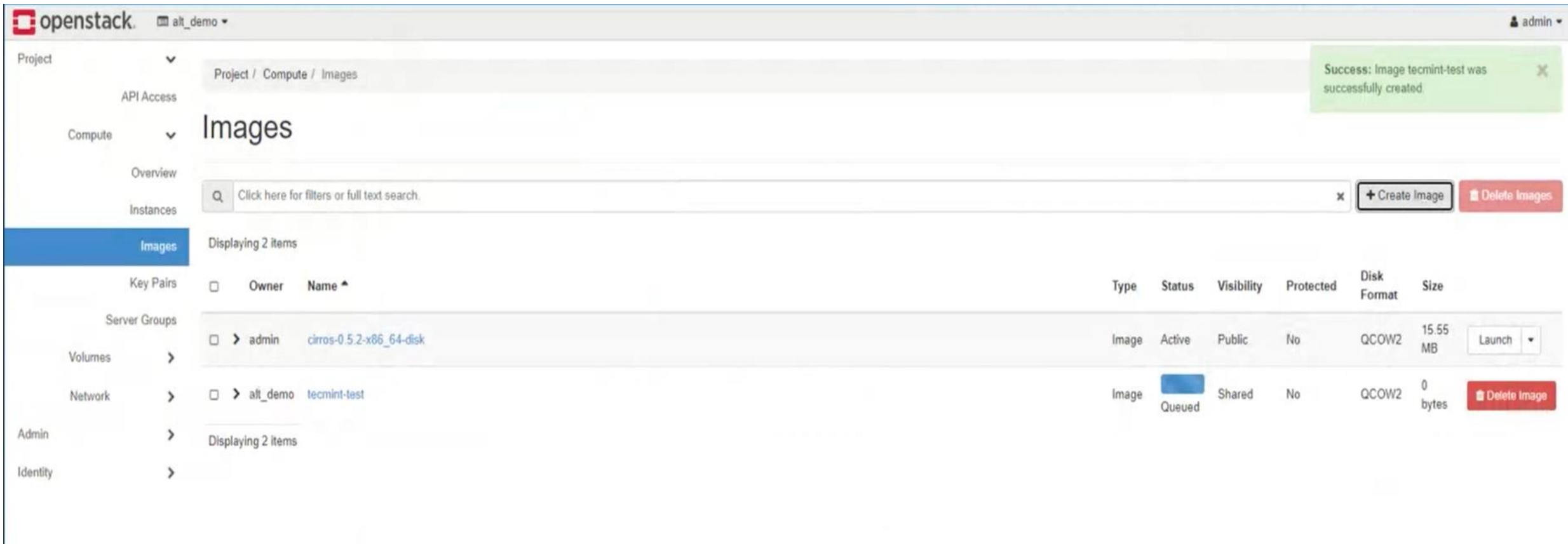
The screenshot shows the 'Create Image' form in OpenStack. The form is titled 'Create Image' and has a close button (X) and a help button (?) in the top right corner. The form is divided into two tabs: 'Image Details' (selected) and 'Metadata'. The 'Image Details' tab contains the following fields:

- Image Name:** A text input field containing 'tecmint-test'.
- Image Description:** A text input field containing 'Cirros test image'.
- Image Source:** A section with a 'File*' label and a 'Browse...' button. The text input field next to it contains 'cirros-0.3.4-arm-initramfs'.
- Format:** A dropdown menu with 'QCOW2 - QEMU Emulator' selected.
- Image Requirements:** A section with three sub-sections:
 - Kernel:** A dropdown menu with 'Choose an image' selected.
 - Ramdisk:** A dropdown menu with 'Choose an image' selected.
 - Architecture:** A text input field.
- Minimum Disk (GB):** A text input field containing '0'.
- Minimum RAM (MB):** A text input field containing '0'.
- Image Sharing:** A section with a 'Visibility' label and four buttons: 'Private', 'Shared' (selected), 'Community', and 'Public'.
- Protected:** A section with a 'Protected' label and two buttons: 'Yes' and 'No' (selected).

At the bottom of the form, there are three buttons: 'Cancel', '< Back', and 'Next >'. The 'Create Image' button, which is a blue button with a checkmark icon, is highlighted with a dashed black border.

Step 2: Create an OpenStack Image

1. The image *tecmint-test* will appear on the dashboard.

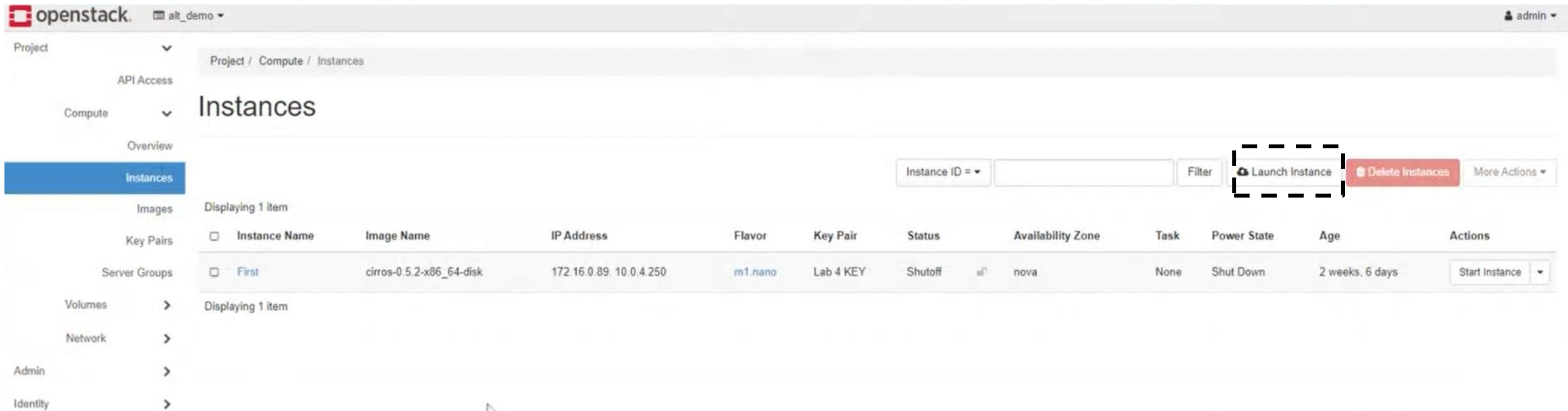


The screenshot shows the OpenStack dashboard interface. The top navigation bar includes the OpenStack logo, a project dropdown set to 'alt_demo', and a user profile 'admin'. The left sidebar contains a navigation menu with options like Project, API Access, Compute, Overview, Instances, Images (highlighted), Key Pairs, Server Groups, Volumes, Network, Admin, and Identity. The main content area is titled 'Images' and includes a search bar and buttons for '+ Create Image' and 'Delete Images'. A green notification banner at the top right confirms the successful creation of the 'tecmint-test' image. Below this, a table displays the list of images.

	Owner	Name	Type	Status	Visibility	Protected	Disk Format	Size	
<input type="checkbox"/>	admin	cirros-0.5.2-x86_64-disk	Image	Active	Public	No	QCOW2	15.55 MB	Launch
<input type="checkbox"/>	alt_demo	tecmint-test	Image	Queued	Shared	No	QCOW2	0 bytes	Delete Image

Step 3: Create an Instance of an Image

1. Project -> Compute -> Instances
2. Click on **Launch Instances**



The screenshot shows the OpenStack dashboard interface. The top navigation bar includes the OpenStack logo, a project dropdown set to 'alt_demo', and a user profile 'admin'. The left sidebar contains a navigation menu with 'Instances' selected. The main content area is titled 'Instances' and shows a table with one instance. Above the table, there are buttons for 'Launch Instance' (highlighted with a dashed black box), 'Delete Instances', and 'More Actions'. The table has columns for Instance Name, Image Name, IP Address, Flavor, Key Pair, Status, Availability Zone, Task, Power State, Age, and Actions.

Instance Name	Image Name	IP Address	Flavor	Key Pair	Status	Availability Zone	Task	Power State	Age	Actions
First	cirros-0.5.2-x86_64-disk	172.16.0.89 10.0.4.250	m1.nano	Lab 4 KEY	Shutoff	nova	None	Shut Down	2 weeks, 6 days	Start Instance

Instance

- Add an appropriate name for your instance
- Leave the Availability Zone to nova
- Use one (1) instance count
- Click **Next** button to continue.

Launch Instance

Please provide the initial hostname for the instance, the availability zone where it will be deployed, and the instance count. Increase the Count to create multiple instances with the same settings.

Details

Source

Flavor *

Networks *

Network Ports

Security Groups

Key Pair

Configuration

Server Groups

Scheduler Hints

Metadata

Project Name

alt_demo

Instance Name *

tecmin-LAB

Description

In Class Lab

Availability Zone

nova

Count *

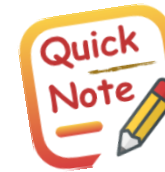
1

Total Instances (10 Max)

20%

1 Current Usage
1 Added
8 Remaining

Buttons: < Back, Next >, Launch Instance



- ❑ Choose a **descriptive Instance Name** for your instance because this name will be used to form the virtual machine hostname.

Instance – Image Source

- Select Image as a Boot Source ; add the **cirros-0.5.2x86_64disk** by clicking the ‘↑’ up arrow under **Available**
- Create New Volume –**No**
- Click **Next** to proceed further.

Launch Instance

Instance source is the template used to create an instance. You can use an image, a snapshot of an instance (image snapshot), a volume or a volume snapshot (if enabled). You can also choose to use persistent storage by creating a new volume.

Select Boot Source: Create New Volume:

Allocated

Displaying 1 item

Name	Updated	Size	Format	Visibility
> tecmint-test	3/14/22 1:16 PM	3.35 MB	QCOW2	Shared

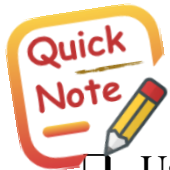
Displaying 1 item

▼ Available 1 Select one

Displaying 1 item

Name	Updated	Size	Format	Visibility
> cirros-0.5.2-x86_64-disk	10/15/21 10:46 PM	15.55 MB	QCOW2	Public

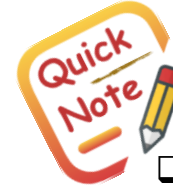
Displaying 1 item



Use this image provided instead to create the instance.

Instance – Adding Flavor

- Allocate the virtual machine resources by adding a flavor best suited for your needs by clicking the ‘↑’ up arrow
- Click on **Next** to move on.



- ❑ When an instance is launched, an amount of resources that will be allocated to the instance.
- ❑ In OpenStack, this is defined by **flavors**.
- ❑ A **flavor** defines the quantum of virtual CPUs, RAM, and disk space that an instance will use when it launches

Launch Instance

Details

Source

Flavor

Networks *

Network Ports

Security Groups

Key Pair

Configuration

Server Groups

Scheduler Hints

Metadata

Flavors manage the sizing for the compute, memory and storage capacity of the instance.

Allocated

Name	VCPUS	RAM	Total Disk	Root Disk	Ephemeral Disk	Public
> m1.tiny	1	512 MB	1 GB	1 GB	0 GB	Yes

Available 11

Select one

Click here for filters or full text search.

Name	VCPUS	RAM	Total Disk	Root Disk	Ephemeral Disk	Public
> m1.nano	1	128 MB	1 GB	1 GB	0 GB	Yes
> m1.micro	1	192 MB	1 GB	1 GB	0 GB	Yes
> cirros256	1	256 MB	1 GB	1 GB	0 GB	Yes
> ds512M	1	512 MB	5 GB	5 GB	0 GB	Yes
> ds1G	1	1 GB	10 GB	10 GB	0 GB	Yes
> m1.small	1	2 GB	20 GB	20 GB	0 GB	Yes
> ds2G	2	2 GB	10 GB	10 GB	0 GB	Yes
> m1.medium	2	4 GB	40 GB	40 GB	0 GB	Yes
> ds4G	4	4 GB	20 GB	20 GB	0 GB	Yes
> m1.large	4	8 GB	80 GB	80 GB	0 GB	Yes
> m1.xlarge	8	16 GB	160 GB	160 GB	0 GB	Yes

Cancel

< Back

Next >

Launch Instance

Instance – Add Network

- Add one of the OpenStack available networks to your instance using the ‘↑’ button.
- Click on **Launch Instance** to start the virtual machine.

Launch Instance

Details

Source

Flavor

Networks

Network Ports

Security Groups

Key Pair

Configuration

Server Groups

Scheduler Hints

Metadata

Networks provide the communication channels for instances in the cloud.

▼ Allocated

Select networks from those listed below.

Network	Subnets Associated	Shared	Admin State	Status
Select an item from Available items below				

▼ Available 2

Select at least one network

Click here for filters or full text search.

Network	Subnets Associated	Shared	Admin State	Status	
> Lab 4	subnet_Sand	No	Up	Active	↑
> shared	shared-subnet	Yes	Up	Active	↑

Cancel

< Back

Next >

Launch Instance

Launch Instance

Details

Source

Flavor

Networks

Network Ports

Security Groups

Key Pair

Configuration

Server Groups

Scheduler Hints

Metadata

Networks provide the communication channels for instances in the cloud.

▼ Allocated 1

Select networks from those listed below.

Network	Subnets Associated	Shared	Admin State	Status	
# 1 > Lab 4	subnet_Sand	No	Up	Active	↓

▼ Available 1

Select at least one network

Click here for filters or full text search.

Network	Subnets Associated	Shared	Admin State	Status	
> shared	shared-subnet	Yes	Up	Active	↑

Cancel

< Back

Next >

Launch Instance

Instance

- Once the instance has been started, hit on the down arrow from Create Snapshot menu button
- Choose **Associate Floating IP**.
- Select one of the floating IP created earlier
- Click on **Associate** button in order to make the instance reachable from your internal LAN.

openstack. alt_demo admin

Project / Compute / Instances

Instances

Instance ID = Filter [Launch Instance](#) [Delete Instances](#) [More Actions](#)

Displaying 2 items

<input type="checkbox"/>	Instance Name	Image Name	IP Address	Flavor	Key Pair	Status	Availability Zone	Task	Power State	Age	Actions
<input type="checkbox"/>	tecmint-LAB	tecmint-test	172.16.0.250	Not available	Lab 4 KEY	Active	nova	None	Running	1 minute	Create Snapshot
<input type="checkbox"/>	First	cirros-0.5.2-x86_64-disk	172.16.0.89, 10.0.4.250	m1.nano	Lab 4 KEY	Shutoff	nova	None	Shut Down	2 weeks, 6 days	Associate Floating IP Attach Interface Detach Interface Edit Instance Attach Volume Detach Volume Update Metadata Edit Security Groups Edit Port Security Groups Console View Log Rescue Instance Pause Instance Suspend Instance Shelve Instance Resize Instance Lock Instance Soft Reboot Instance Hard Reboot Instance Shut Off Instance Rebuild Instance Delete Instance

Displaying 2 items

Manage Floating IP Associations

IP Address [+](#)

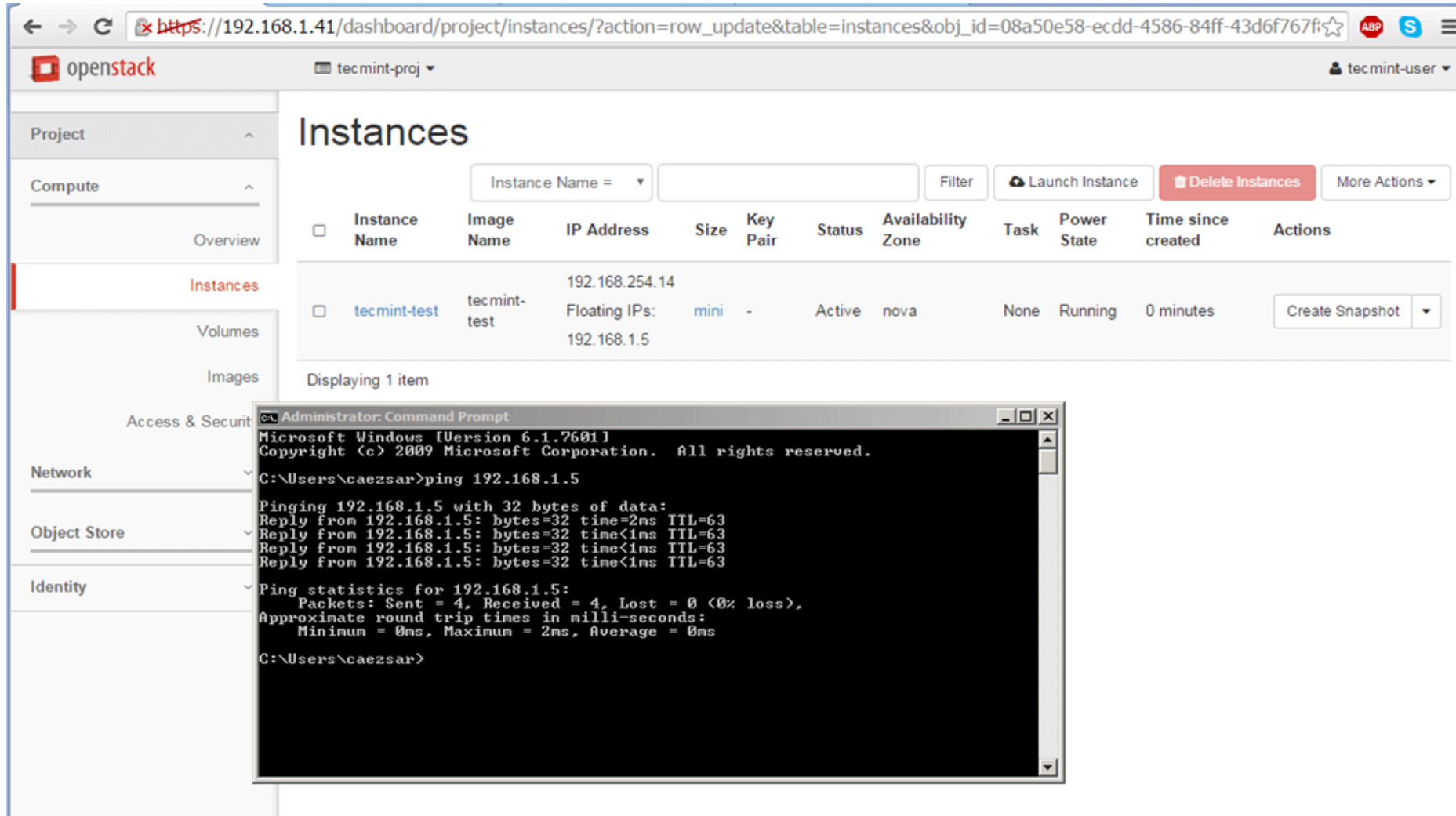
Port to be associated

Select the IP address you wish to associate with the selected instance or port.

[Cancel](#) [Associate](#)

Testing

- To test the network connectivity for your active virtual machine, open the command prompt
- Issue a ping command against the instance floating IP address from a remote computer in your LAN.



The screenshot displays the OpenStack dashboard interface. On the left, a sidebar contains navigation links: Project, Compute, Instances (highlighted in red), Volumes, Images, Access & Security, Network, Object Store, and Identity. The main content area is titled 'Instances' and shows a table with one instance, 'tecmin-test'. The instance is in an 'Active' state with a 'Floating IP' of 192.168.1.5. Below the table, a Windows 'Administrator: Command Prompt' window is open, showing the execution of a 'ping 192.168.1.5' command. The command prompt output indicates successful connectivity with 4 successful replies and 0% loss.

Instances

Instance Name	Image Name	IP Address	Size	Key Pair	Status	Availability Zone	Task	Power State	Time since created	Actions
<input type="checkbox"/> tecmin-test	tecmin-test	192.168.254.14 Floating IPs: 192.168.1.5	mini	-	Active	nova	None	Running	0 minutes	Create Snapshot

Displaying 1 item

```
Administrator: Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\caezsar>ping 192.168.1.5

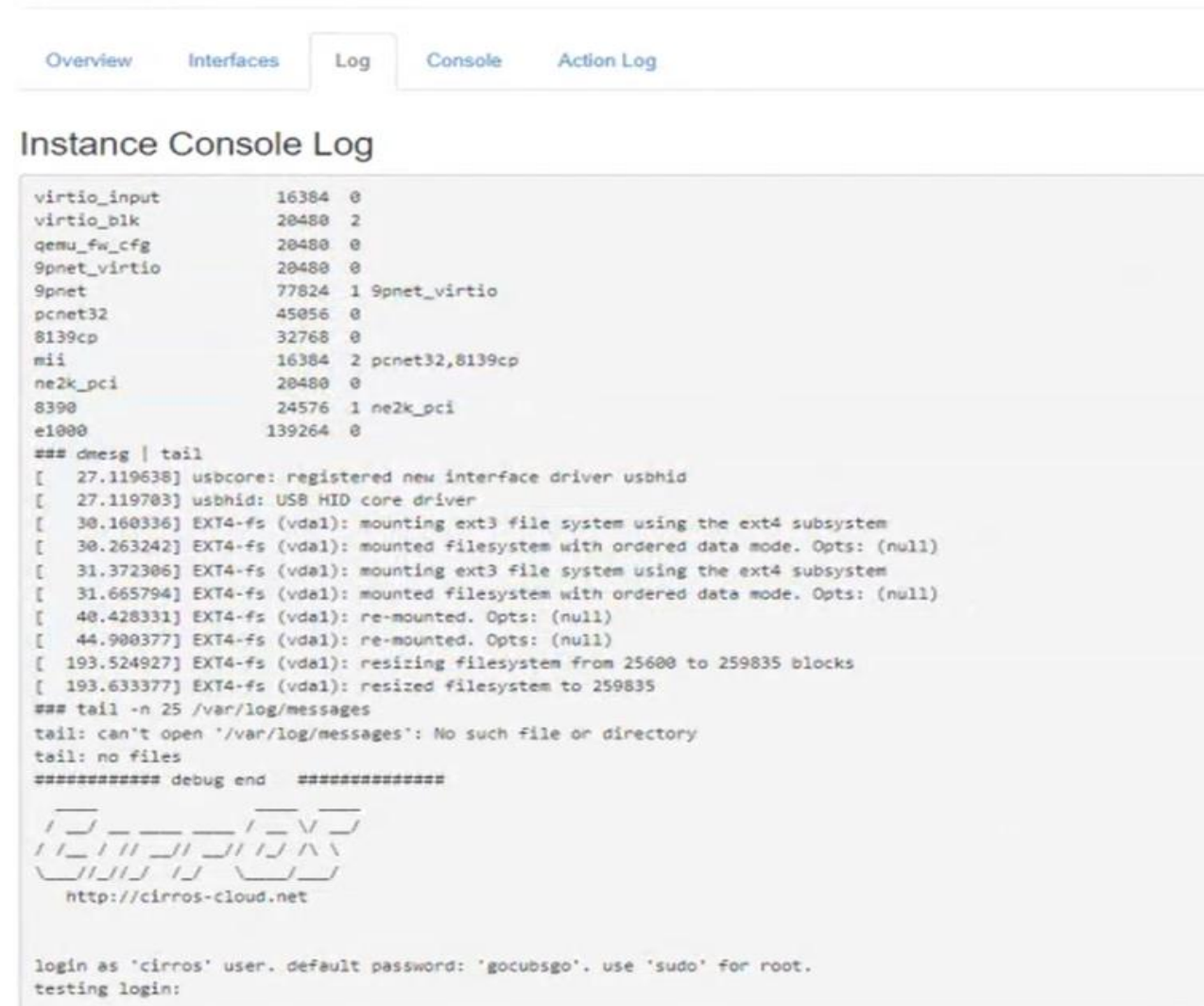
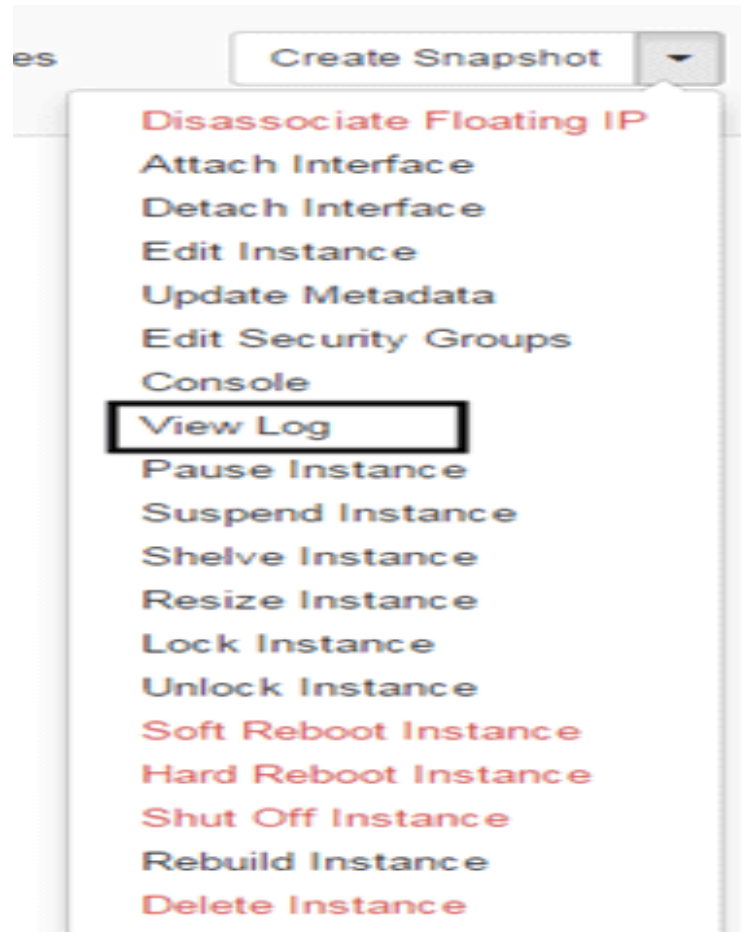
Pinging 192.168.1.5 with 32 bytes of data:
Reply from 192.168.1.5: bytes=32 time=2ms TTL=63
Reply from 192.168.1.5: bytes=32 time<1ms TTL=63
Reply from 192.168.1.5: bytes=32 time<1ms TTL=63
Reply from 192.168.1.5: bytes=32 time<1ms TTL=63

Ping statistics for 192.168.1.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 0ms

C:\Users\caezsar>
```

Testing

- If there's no issue with your instance and the ping command succeeds you can remotely login via SSH on your instance.
- Use the instance **View Log** utility to obtain Cirros default credentials as illustrated on the below screenshots.

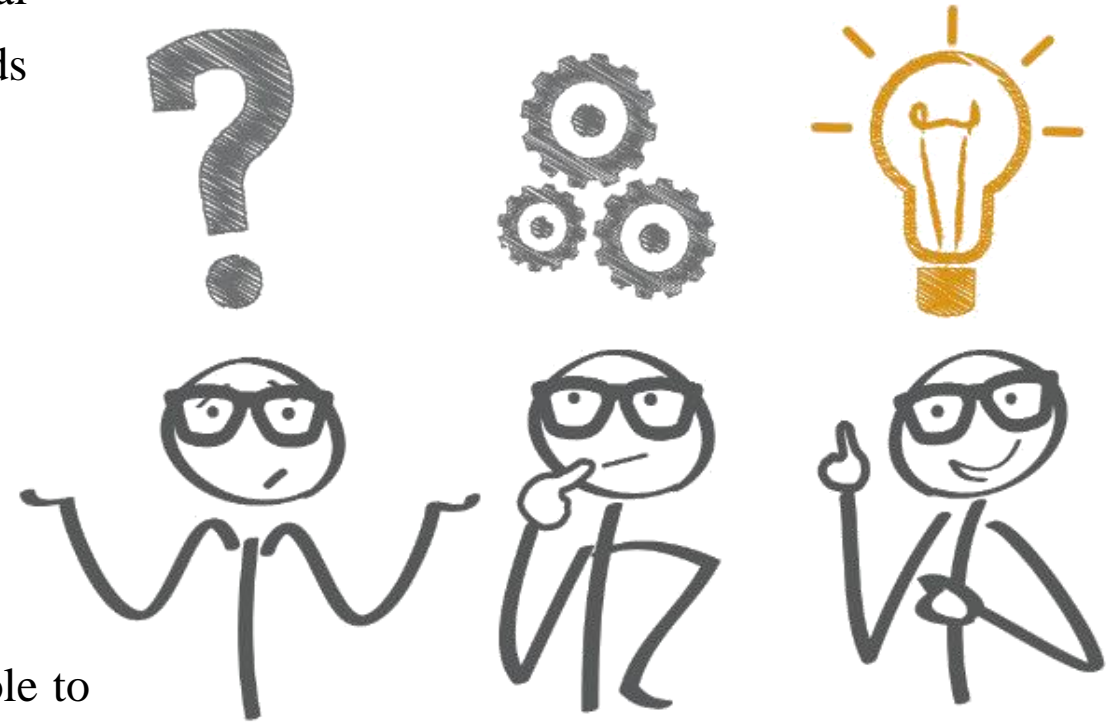


Testing

By default, no DNS name servers will be allocated from the internal network DHCP server for your virtual machine. This problem leads to domain connectivity issues from instance counterpart.

Solution:

- Stop the instance
- Project -> Network -> Networks
- Edit the proper subnet by clicking on the Subnet Details button.
- **Add** the required DNS name servers
- **Save** the configuration, start and connect to the instance console to test if the new configuration has been applied by pinging a domain name.
- Use the following screenshots as a guide.



Testing

https://192.168.1.41/dashboard/project/instances/08a50e58-ecdd-4586-84ff-43d6f767f806/?tab=instance_details_log

openstack tecmint-proj tecmint-user

- Overview
- Instances
- Volumes
- Images
- Access & Security
- Network
- Object Store
- Identity

Instance Console Log

```
CPU(s): 1 @ 1995.483 MHz
Cores/Sockets/Threads: 1/1/1
Virt-type: AMD-V
RAM Size: 133MB
Disks:
NAME MAJ:MIN      SIZE LABEL          MOUNTPOINT
vda 253:0    1073741824
vda1 253:1    1061061120 cirros-rootfs /
=== sshd host keys ===
-----BEGIN SSH HOST KEY KEYS-----
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQgR6eUHFUKK+RjRZJoUpR3ItaFxB0I/Pw3CNDao3WQLn5mb51iC1J+ANxeQJNC/JhJFLb15AFkPa18xwmKY0+ESKFVO28ZDIAwqYB1
7FIixOO+DLLrGUo9/yokpvSMk7D/OvuQQO4cNjg32Oc9cz1iwilugt1Xge+MmM1sH3eChEmNk= root@tecmint-test
ssh-dss AAAAB3NzaC1kc3MAAACBAIPFCXSLW6s9G...
192.168.1.5 - PuTTY
login as: cirros
cirros@192.168.1.5's password:
Access denied
cirros@192.168.1.5's password:
$ uname -a
Linux tecmint-test 3.2.0-80-virtual #116-Ubuntu SMP Mon Mar 23 17:28:52 UTC 2015
x86_64 GNU/Linux
$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 16436 qdisc noqueue
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        inet6 ::1/128 scope host
            valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1400 qdisc pfifo_fast qlen 1000
    link/ether fa:16:3e:7f:07:5e brd ff:ff:ff:ff:ff:ff
    inet 192.168.254.14/24 brd 192.168.254.255 scope global eth0
        inet6 fe80::f816:3eff:fe7f:75e/64 scope link
            valid_lft forever preferred_lft forever
$ cat /etc/issue
login as 'cirros' user. default password: 'cubswin:'). use 'sudo' for root.
$
```

http://cirros-cloud.net

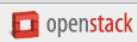
login as 'cirros' user. default password: 'cubswin:'). use 'sudo' for root.
tecmint-test login:

Instances

Instance Name = Filter Launch Instance Delete Instances More Actions ▼

<input checked="" type="checkbox"/>	Instance Name	Image Name	IP Address	Size	Key Pair	Status	Availability Zone	Task	Power State	Time since created	
<input checked="" type="checkbox"/>	tecmint-test	tecmint-test	Floating IPs: 192.168.254.14 192.168.1.5	mini	-	Active	nova	None	Running	52 minutes	<div>Start Instances Shut Off Instances Soft Reboot Instances Create Snapshot ▼</div>

Displaying 1 item

 tecmint-proj ▼ tecmint-user ▼

Project ^

Compute ▼

Network ^

Network Topology

Networks

Routers

Object Store ▼

Identity ▼

Networks / internal Edit Network ▼

Network Overview

Nameinternal
ID3df19c6f-6db4-4955-a2e6-e0392b097c9f
Project ID6cee6d4b35504c97a51ec0c766c33323
StatusActive
Admin StateUP
SharedNo
External NetworkNo
MTU1450

Subnets + Create Subnet Delete Subnets

<input type="checkbox"/>	Name	Network Address	IP Version	Gateway IP	Actions
<input type="checkbox"/>	internal-tecmint	192.168.254.0/24	IPv4	192.168.254.1	Edit Subnet ▼

Displaying 1 item

Ports

Name	Fixed IPs	Attached Device	Status	Admin State	Actions
(4c46ad95-ff24)	192.168.254.1	network:router_interface	Active	UP	Edit Port
(e193a160-e4fc)	192.168.254.14	compute:nova	Active	UP	Edit Port
(e41a63cc-0773)	192.168.254.2	network:dhcp	Active	UP	Edit Port

openstack

tecmin-proj

tecmin-user

Project

Compute

Network

Network Topology

Networks

Routers

Object Store

Identity

Subnet

Subnet Details

☒ Enable DHCP

Specify additional attributes for the subnet.

Allocation Pools

192.168.254.2,192.168.254.254

DNS Name Servers

192.168.1.1
8.8.8.8
8.8.4.4

Host Routes

« Back

Save

Edit Network

+ Create Subnet

Delete Subnets

Actions

Edit Subnet

Admin State

Actions

Edit Port

Edit Port

Edit Port

(e41a63cc-0773)

192.168.254.2

network:dhcp

Active

UP

Edit Port

Displaying 3 items

Notes

We looked at managing flavors, key pairs, instances, and floating IP addresses. A running instance's storage is ephemeral by design. This means that any data stored in the instance's local disk is lost upon the instance's termination.

We will attach a virtual block storage device to the running instance. This storage will persist after an instance that it is attached to is terminated.

Notes to support what you have done in this lab:

Some groundwork is needed to get to launching an instance. We need a tenant for the instance to live in, an image on which it can run, a network for it to live in, and a key pair to authenticate with. These are all the necessary resources to create in order to launch an instance, and now that these resources have been created, they can be reused for future instances that will be launched.

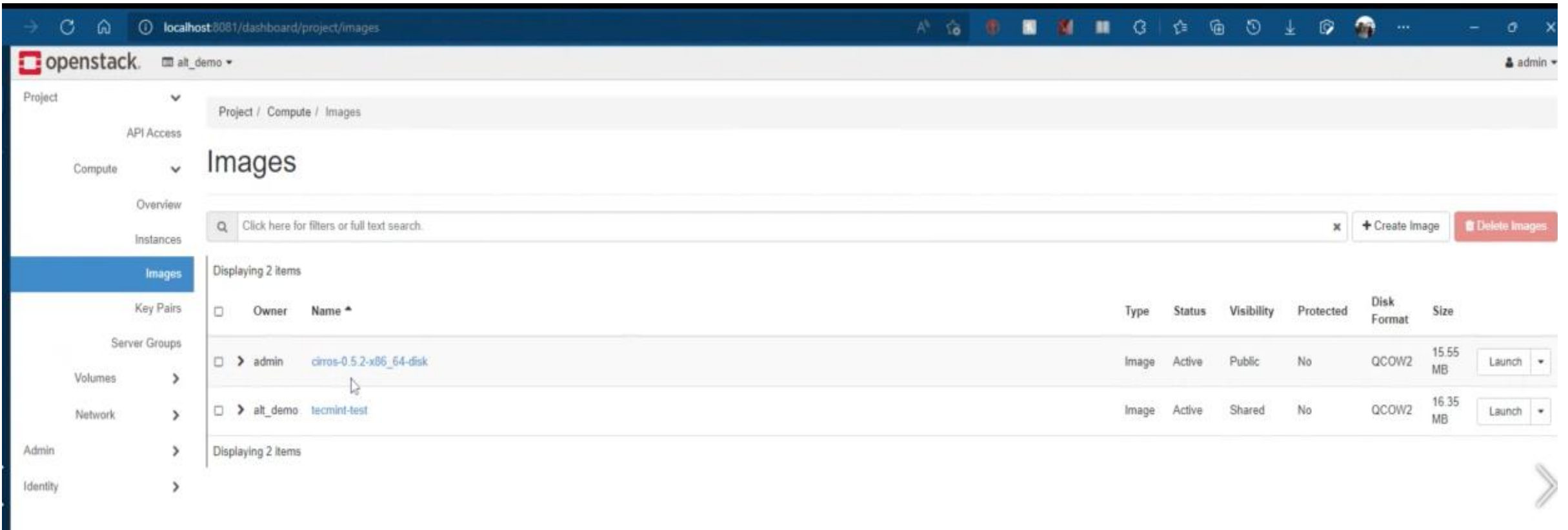
Now that an instance is running, the next step is to communicate with it in a fashion other than with the console through a web browser. In the instance list you just

saw, an IP address on the tenant network will be listed once it's been assigned. The IP address that's initially assigned to the instance is not a routeable IP address; to communicate with the instance, you will need to assign a floating IP address from the external network. The floating IP address will be mapped to the tenant network IP address, and you will be able to communicate with the instance by way of the floating IP address.

The End

Instance – Image Source

- Select Image as a Boot Source ; add the **cirros-0.5.2x86_64disk** by clicking the ‘ ’ up arrow under **Available**
- Create New Volume –No
- Click **Next** to proceed further.



The screenshot shows the OpenStack dashboard interface. The left sidebar contains navigation links for Project, API Access, Compute, Overview, Instances, Images (selected), Key Pairs, Server Groups, Volumes, Network, Admin, and Identity. The main content area is titled 'Images' and includes a search bar, '+ Create Image' button, and '- Delete Images' button. Below the search bar, it says 'Displaying 2 items'. A table lists the images with columns: Owner, Name, Type, Status, Visibility, Protected, Disk Format, Size, and a 'Launch' button. The first image is 'cirros-0.5.2-x86_64-disk' owned by 'admin', with a size of 15.55 MB. The second image is 'tecmin-test' owned by 'alt_demo', with a size of 16.35 MB. A mouse cursor is hovering over the 'cirros-0.5.2-x86_64-disk' link.

Owner	Name	Type	Status	Visibility	Protected	Disk Format	Size	Launch
admin	cirros-0.5.2-x86_64-disk	Image	Active	Public	No	QCOW2	15.55 MB	Launch
alt_demo	tecmin-test	Image	Active	Shared	No	QCOW2	16.35 MB	Launch