



Linux Academy
Live! Lab

Create a New
Image

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Lab Connection Information

- Labs may take up to five minutes to build
- Access to the Horizon Dashboard is provided on the Live! Lab page, along with your login credentials
- SSH information is provided on the Live! Lab page
- Labs will automatically end once the allotted amount of time finishes

Related Courses

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OpenStack Instance](#)

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*... and you can
always send in a
support ticket on
our website to talk
to an instructor!*

Introduction

Images are used to contain a pre-installed operating system and application software. We need to create these images before image registration.

Using the SSH details on the **Live! Lab** page, log in to your server, then log in to the Horizon Dashboard using the *demo* user and *demo* tenant to download the **OpenStack RC File**, located under the **API Access** tab, under **Security & Access**. Copy the file to your server, giving it the name of *demo.sh*.

Source the file, inputting demo's password when prompted:

```
root@openstack:~# source demo.sh
```

Prepare for Instance Creation

In previous lessons and labs, we covered how to create a key pair and a security group. Do this now, as the *demo* user. The security group needs port 22 open.

Create an Image

Ubuntu

Ubuntu provides a cloud image for use, that we are using to register the image with our OpenStack image service instead of creating one from scratch. Use *wget* to download the image from cloud-images.ubuntu.com:

```
root@openstack:~# wget https://cloud-images.ubuntu.com/trusty/current/trusty-server-
cloudimg-amd64-disk1.img
--2016-06-27 20:15:25-- https://cloud-images.ubuntu.com/trusty/current/trusty-server-
cloudimg-amd64-disk1.img
Resolving cloud-images.ubuntu.com (cloud-images.ubuntu.com)... 2001:67c:1360:8001:ffff:fff
f:ffff:fffe, 91.189.88.141
Connecting to cloud-images.ubuntu.com (cloud-images.ubuntu.com)|2001:67c:1360:8001:ffff:ff
ff:ffff:fffe|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 260375040 (248M) [application/octet-stream]
Saving to: 'trusty-server-cloudimg-amd64-disk1.img'

100%[=====>]
260,375,040 3.69MB/s in 30s

2016-06-27 20:15:55 (8.19 MB/s) - 'trusty-server-cloudimg-amd64-disk1.img' saved
[260375040/260375040]
```

Once downloaded, we need to use Glance to create an image. Images are stored in Swift. Glance is what retrieves the image when it needs to be used later at first system boot.

To add the image:

```
root@openstack:~# glance image-create --progress --name Ubuntu1404 --file trusty-server-
cloudimg-amd64-disk1.img --disk-format qcow2 --container-format bare
[=====>] 100%
```

Property	Value
checksum	151c29b2116a4704e1c9b7fe5ca26f26
container_format	bare
created_at	2016-06-27T20:17:55Z
disk_format	qcow2
id	927725cf-5580-4cf7-9c67-c830379bf454
min_disk	0
min_ram	0
name	Ubuntu1404
owner	699f337bb78b42aaa12528d72acbc06
protected	False
size	260375040
status	active
tags	[]
updated_at	2016-06-27T20:17:57Z
virtual_size	None
visibility	private

The `--progress` flag outputs a progress bar for the creation process once the command is run; `--file` denotes the image file we are using; `--disk-format`, the file format of the created image; and `--container-format`, whether or not virtual image file contains additional metadata about the machine — `bare` indicates that it does not.

CentOS 7

We now want to repeat this process with a CentOS 7 cloud image from cloud.centos.org:

```
root@openstack:~# wget http://cloud.centos.org/centos/7/images/CentOS-7-x86_64-
GenericCloud-1503.qcow2
Resolving cloud.centos.org (cloud.centos.org)... 2607:1680:0:1::2, 162.252.80.138
Connecting to cloud.centos.org (cloud.centos.org)|2607:1680:0:1::2|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1004994560 (958M)
Saving to: 'CentOS-7-x86_64-GenericCloud-1503.qcow2'

100%[=====>]
1,004,994,560 18.8MB/s in 47s

2016-06-27 20:25:33 (20.2 MB/s) - 'CentOS-7-x86_64-GenericCloud-1503.qcow2' saved
[1004994560/1004994560]
```

Create the image:

```
root@openstack:~# glance image-create --progress --name centos7 --file CentOS-7-x86_64-
GenericCloud-1503.qcow2 --disk-format qcow2 --container-format bare
[=====>] 100%
```

Property	Value
checksum	9eca98f4b3ad7e6dd4390a9d181381c9
container_format	bare
created_at	2016-06-27T20:26:51Z
disk_format	qcow2
id	9b281353-5a4c-478c-9236-36600c32fa0e
min_disk	0
min_ram	0
name	centos7
owner	699f337bb78b42aaa12528d72acbc06
protected	False
size	1004994560
status	active
tags	[]
updated_at	2016-06-27T20:26:57Z
virtual_size	None
visibility	private

Now, should we run `glance image-list`, we can see the two newly-created images.

Spin Up an Instance

We can now use these images to create a virtual machine. Move to the Horizon console, and log in as *admin*.

Under the **System** menu, navigate to **Images**. You can see that while the three original Cirros images are public, the two we just created are not. Public images can be used by other tenants. To make public, go to the **Edit Image** button for the chosen image, and check off the *Public* box.

Log out and log back in as the *demo* user.

Go to the **Compute** menu, and select **Instances**. To spin up an instance, we want to press **Launch Instance**.

We gave our instance a **name** of *centos*, a **Flavor** of *m1.small*, and a **Boot Source** of *Boot from image*. For the image, choose the newly-created *centos7* image. Move to the **Access & Security** tab, and select the key pair you created before starting the lab. You also need to select your created security group to allow for SSH later in this lab.

Launch the instance.

Once the server has launched, return to your terminal, where you should still be on your OpenStack server.

SSH into the newly-created instance, using the IP address provided on the OpenStack dashboard:

```
root@openstack:~# ssh -i ssh-key centos@10.0.0.8
```

`exit` the terminal, then repeat the process with the *Ubuntu* image we created earlier.

Return to the **Instances** page. Press **Launch Instance**. We set the **name** to *ubuntu*, the **Flavor** to *m1.small*, the **Boot Source** to *Boot from image*, and then select the *ubuntu* image created earlier in the lab. Set the key pair and security group, then select **Launch**.

Once booted, log in to the server to ensure it is working:

```
root@openstack:~# ssh -i ssh-key ubuntu@10.0.0.8
```

Delete an Image

Images can be deleted from either the command line, or through the Dashboard.

From the Dashboard, log out and then log in as the *admin* user. Under **System**, go to **Images**, then check off the delete the CentOS and Ubuntu images.

This can also be done from the CLI using the command:

```
root@openstack:~# glance image-delete centos7
```

The name of the image can also be substituted for the image ID.

With the images successfully deleted, the lab is complete.