



Linux Academy
Live! Lab

Launching
Instances
from the CLI

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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

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Introduction

Using the OpenStack command line interface, that lab shows users how to creating, manage, resize, and delete new virtual machines.

Log in to your server using the SSH details provided on the **Live! Lab** page.

Booting an Instance from the Cli

We now need to create an admin credential file. To do this, return to the Live! Lab page and log in to the Horizon dashboard using the *demo* login information. Ensure that the *demo* project is selected.

From the **Compute** menu item select **Access & Security**. Click on the **API Access** tab, then **Download OpenStack RC File**.

Return to your terminal and either copy and paste the downloaded file to a file titled *demo.rc* or *scp* the current file to the server's home directory and change the filename appropriately.

Source the credential file:

```
root@openstack01042016-150302:~# source demo.rc
```

Input the password for the *demo* user, found on the Live! Lab page.

Check to see if any instances currently exist:

```
root@openstack01042016-150302:~# nova list
```

ID	Name	Status	Task State	Power State	Networks

There should be none, but before we create one we need to be aware of what images and flavors we have available for use.

To view the available images, run:

```
root@openstack01042016-150302:~# nova image-list
```

ID	Name	Status	Server
1a938c55-ee1e-4293-b5f0-23380129e8	cirros-0.3.4-x86_64-uec	ACTIVE	
637243b0-99e1-4c62-af0e-1867b54256	cirros-0.3.4-x86_64-uec-kernel	ACTIVE	
94a10227-af1f-4e86-ad3b-da1f0a88d5	cirros-0.3.4-x86_64-uec-ramdisk	ACTIVE	

We want to use the `cirros-0.3.4-x86_64-uec` image.

To view the available flavors, run:

```
root@openstack01042016-150302:~# nova flavor-list
```

ID	Name	Memory_MB	Disk	Ephemeral	Swap	VCPU	RXTX_Factor	Is_Public
1	m1.tiny	512	1	0		1	1.0	True
2	m1.small	2048	20	0		1	1.0	True
3	m1.medium	4096	40	0		2	1.0	True
4	m1.large	8192	80	0		4	1.0	True
5	m1.xlarge	16384	160	0		8	1.0	True

We want to use the `m1.tiny` flavor.

Now that we know our selections, we can boot an instance:

```
root@openstack01042016-150302:~# nova boot --image cirros-0.3.4-x86_64-uec --flavor m1.tiny testvm
```

Property	Value
OS-DCF:diskConfig	MANUAL
OS-EXT-AZ:availability_zone	
OS-EXT-STS:power_state	0
OS-EXT-STS:task_state	scheduling
OS-EXT-STS:vm_state	building
OS-SRV-USG:launched_at	-
OS-SRV-USG:terminated_at	-
accessIPv4	
accessIPv6	
adminPass	ryfM2jUerK4i
config_drive	
created	2016-04-01T20:39:22Z
flavor	m1.tiny (1)
hostId	
id	4302e23b-b69f-40bd-8d98-fed04f052231
image	cirros-0.3.4-x86_64-uec (1a938c55-ee1e-4293-b5)
key_name	-
metadata	{}
name	testvm
os-extended-volumes:volumes_attached	[]
progress	0
security_groups	default
status	BUILD
tenant_id	3e8d181b6d2c4751bb601d083de2a13e
updated	2016-04-01T20:39:22Z
user_id	37c850f3dc124f3e80630a563c10d8d6

You can see where the image and flavor names were input. `testvm` is the name we have given our virtual machine.

Now, should you run `nova list` again, you can see your new image listed.

To see information specific to the virtual machine, run:

```
root@openstack01042016-150302:~# nova show testvm
```

Property	Value
OS-DCF:diskConfig	MANUAL
OS-EXT-AZ:availability_zone	nova
OS-EXT-STS:power_state	1
OS-EXT-STS:task_state	-
OS-EXT-STS:vm_state	active
OS-SRV-USG:launched_at	2016-04-01T20:39:30.000000
OS-SRV-USG:terminated_at	-
accessIPv4	
accessIPv6	
config_drive	True
created	2016-04-01T20:39:22Z
flavor	m1.tiny (1)
hostId	70a9e2c9ee769f6ac320a633ef627e59e2c84d70134ab9a
id	4302e23b-b69f-40bd-8d98-fed04f052231
image	cirros-0.3.4-x86_64-uec (1a938c55-ee1e-4293-b5)
key_name	-
metadata	{}
name	testvm
os-extended-volumes:volumes_attached	[]
private network	fdfe:31cc:6efd:0:f816:3eff:fe7d:af6a, 10.0.0.3
progress	0
security_groups	default
status	ACTIVE
tenant_id	3e8d181b6d2c4751bb601d083de2a13e
updated	2016-04-01T20:39:30Z
user_id	37c850f3dc124f3e80630a563c10d8d6

Managing and Resizing Instances

Pausing, Stopping and Starting

Run the `nova list` command to see the status of your instance.

To begin, pause your VM:

```
root@openstack01042016-150302:~# nova pause testvm
```

If you once more run `nova list` you can see the state of the `testvm`. We recommend running `nova list` and examining the output after trying all the following commands.

To unpause:

```
root@openstack01042016-150302:~# nova unpause testvm
```

To suspend and unsuspend:

```
root@openstack01042016-150302:~# nova suspend testvm
root@openstack01042016-150302:~# nova resume testvm
```

To stop and start:

```
root@openstack01042016-150302:~# nova stop testvm
Request to stop server testvm has been accepted.
root@openstack01042016-150302:~# nova start testvm
Request to start server testvm has been accepted.
```

Changing the Flavor Size

Once more review the flavor list:

```
root@openstack01042016-150302:~# nova flavor list
```

We want to change our `testvm`'s flavor from `m1.tiny` to `m1.small`:

```
root@openstack01042016-150302:~# nova resize testvm m1.small
```

Run `nova list` to view the state of the changes. You can farther check on the changes after the resizing is done by running:

```
root@openstack01042016-150302:~# nova show testvm
```

Property	Value
OS-DCF:diskConfig	MANUAL
OS-EXT-AZ:availability_zone	nova
OS-EXT-STS:power_state	1
OS-EXT-STS:task_state	resize_finish
OS-EXT-STS:vm_state	active
OS-SRV-USG:launched_at	2016-04-01T20:39:30.000000
OS-SRV-USG:terminated_at	-
accessIPv4	
accessIPv6	
config_drive	True

created	2016-04-01T20:39:22Z
flavor	m1.small (2)
hostId	5c8a1ee70a9e2c9ee769f6ac320a633ef627e59e2c84d70
id	4302e23b-b69f-40bd-8d98-fed04f052231
image	cirros-0.3.4-x86_64-uec (1a938c55-ee1e-4293-b5)
key_name	-
metadata	{}
name	testvm
os-extended-volumes:volumes_attached	[]
private network	10.0.0.3, fdfe:31cc:6efd:0:f816:3eff:fe7d:af6a
progress	0
security_groups	default
status	RESIZE
tenant_id	3e8d181b6d2c4751bb601d083de2a13e
updated	2016-04-01T20:42:17Z
user_id	37c850f3dc124f3e80630a563c10d8d6

Deleting an Instance

To delete an instance use the `nova delete` command:

```
root@openstack01042016-150302:~# nova delete testvm
Request to delete server testvm has been accepted.
```

Run `nova list` to confirm your `testvm` no longer exists.