1. At this time use devmode and the beta channel:

```
sudo snap install microstack --devmode --beta
```

Information on the installed snap can be viewed like this:

Here we see that OpenStack Ussuri has been deployed!

# 2. Initialisation

The initialisation step automatically deploys, configures, and starts OpenStack services. In particular, it will create the database, networks, an image, several flavors, and ICMP/SSH security groups. This can all be done within 10 to 20 minutes depending on your machine:

```
sudo microstack init --auto -control
```

## 3. Verification

The purpose of the verification step is to confirm that the cloud is in working order and to discover some of the defaults used by MicroStack. Verification will consist of the following actions:

- perform various OpenStack queries
- create an instance
- connect to the instance over SSH
- access the cloud dashboard

### 3.1 Query OpenStack

The standard openstack client comes pre-installed and is invoked like so:

```
microstack.openstack <command>
To list the default image:
```

microstack.openstack image list

ID	Name	Status
7fefc80f-d745-4764-9389-00cc4a12585d	cirros	active

To get the default list of flavors:

microstack.openstack flavor list

ID				Ephemeral		++   Is Public   +
2     3     4	m1.tiny m1.small m1.medium m1.large m1.xlarge	512 2048 4096 8192	1   20   20   20   20	0 0 0 0	1 2 4	True   True   True   True   True

#### 3.2 Create an instance

MicroStack comes with a convenient instance creation command called microstack launch. It uses the following defaults for its instances:

- keypair 'microstack'
- flavor 'm1.tiny'
- floating IP address on subnet '10.20.20.0/24'

To create an instance named 'test' based on the 'cirros' image:

microstack launch cirros -n test

The microstack launch command also supports arguments --key, --flavor, --image, and --net-id, in which case you will need to create objects using the standard client if non-default values are desired.

#### Note:

The launch command can be replaced with the traditional microstack.openstack server create command.

#### 3.3 Connect to the instance

Output from the microstack launch command includes all the information needed to connect to the instance over SSH:

Creating local "microstack" ssh key at /home/ubuntu/snap/microstack/common/.ssh/id\_microstack Launching server ...
Allocating floating ip ...

Server test launched! (status is BUILD)

Access it with `ssh -i /home/ubuntu/snap/microstack/common/.ssh/id\_microstack cirros@10.20.20.199`

Note:

The launch command, upon its initial invocation, will set up a default OpenStack keypair.

Access the instance using the private SSH key associated with the default keypair:

ssh -i /home/ubuntu/snap/microstack/common/.ssh/id\_microstack
cirros@10.20.199

#### 3.4 Access the cloud dashboard

You can log in to the web UI by pointing your browser to the following URL:

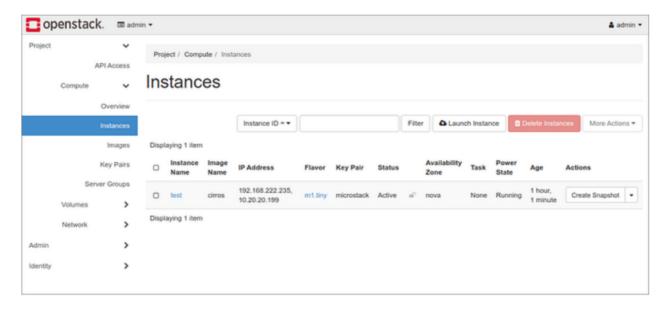
https://10.20.20.1

The username is 'admin' and the password is obtained in this way:

sudo snap get microstack config.credentials.keystone-password
Sample password:

OAEHxLgCBz7Wz4usvolAAt61TrDUz6zz

Upon logging in you should see the created instance:



Explore Openstack using the URL

https://ubuntu.com/tutorials/explore-openstack-components-andset-up-an-openstack-client#1-overview