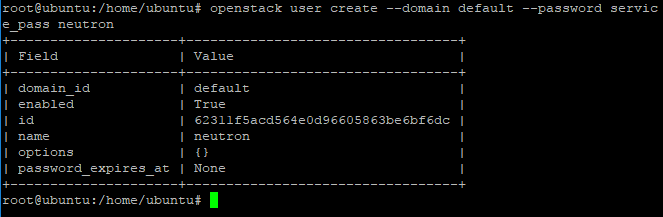
**Lab 04 Install and Configure Neutron**

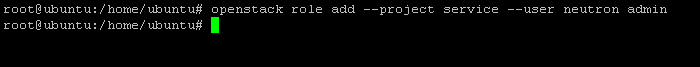
**Step 1 : Create the neutron user**

# openstack user create --domain default --password service\_pass neutron



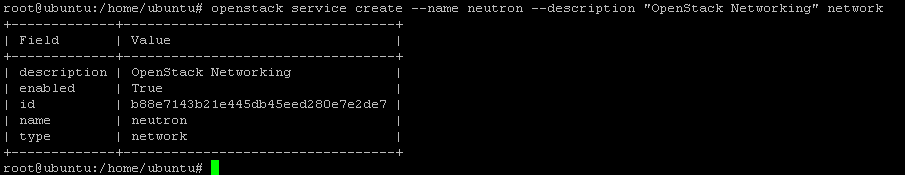
**Step 2 : Add the admin role to the neutron user**

# openstack role add --project service --user neutron admin



**Step 3 : Create the neutron service entity**

# openstack service create --name neutron --description "OpenStack Networking" network



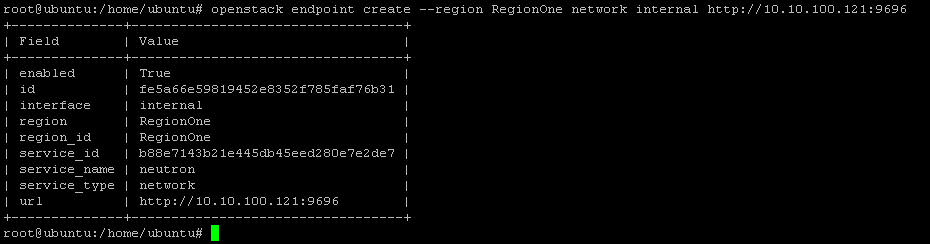
**Step 4 : Create the Networking service API endpoints**

# openstack endpoint create --region RegionOne network public http://192.168.0.59:9696



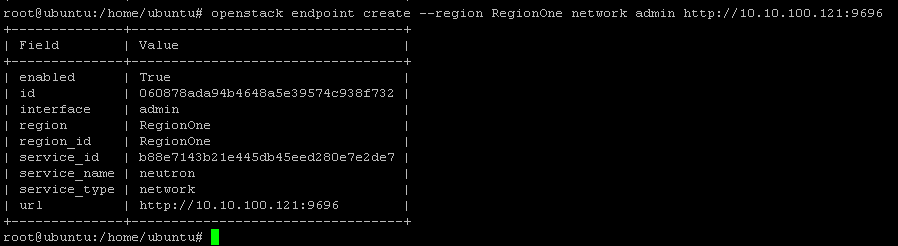
**Step 5: Create the Networking service API endpoints**

# openstack endpoint create --region RegionOne network internal http://192.168.0.60:9696



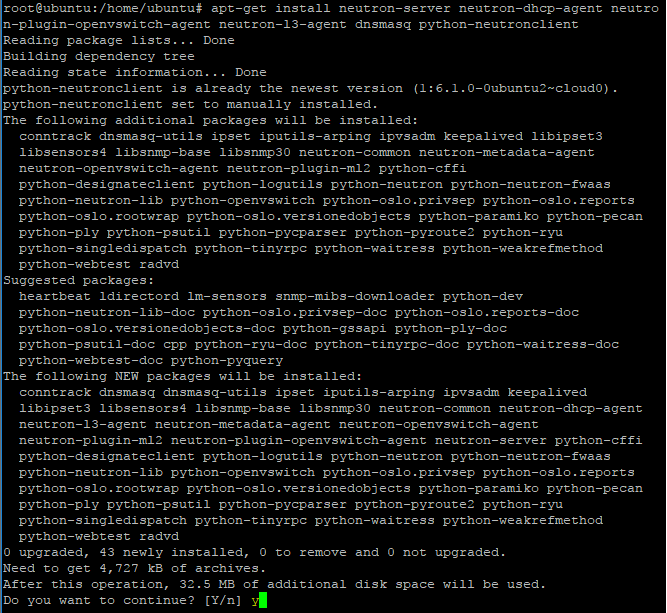
**Step 6 : Create the Networking service API endpoints**

# openstack endpoint create --region RegionOne network admin http://192.168.0.60:9696



**Step 7 :** **Install the Neutron components**

# apt-get install neutron-server neutron-dhcp-agent neutron-plugin-openvswitch-agent neutron-l3-agent dnsmasq python-neutronclient



**Step 8 :** **Login to Mysql database**

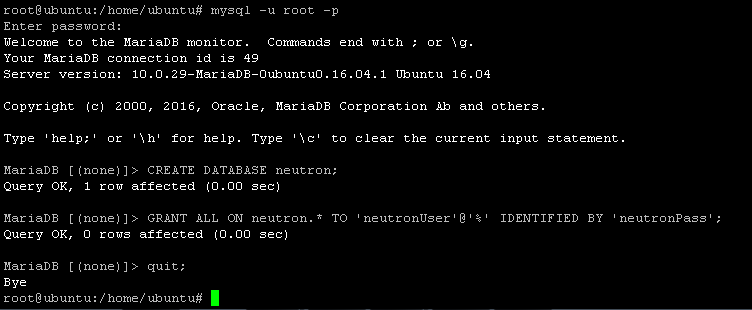
# mysql -u root -p

**Step 9 :** **Creating neutron Database**

# CREATE DATABASE neutron;

GRANT ALL ON neutron.\* TO 'neutronUser'@'%' IDENTIFIED BY 'neutronPass';

quit;

**// In my Case password is “root1234”**

**Step 10 :** **Restarting the neutron server**

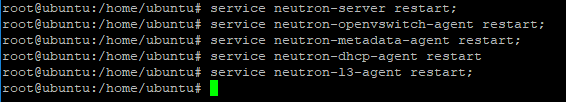
# service neutron-server restart;

service neutron-openvswitch-agent restart;

service neutron-metadata-agent restart;

service neutron-dhcp-agent restart;

service neutron-l3-agent restart;



**Step 15** : **Editing neutron l3 agent file**

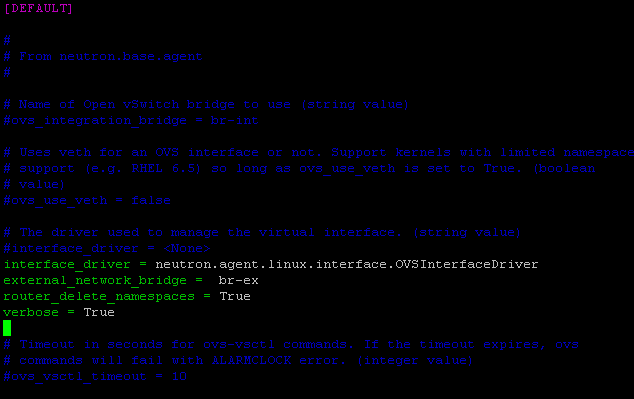
# vim /etc/neutron/l3\_agent.ini

interface\_driver = neutron.agent.linux.interface.OVSInterfaceDriver

external\_network\_bridge = br-ex

router\_delete\_namespaces = True

verbose = True



**Step 16 :** **Editing neutron dhcp agent file**

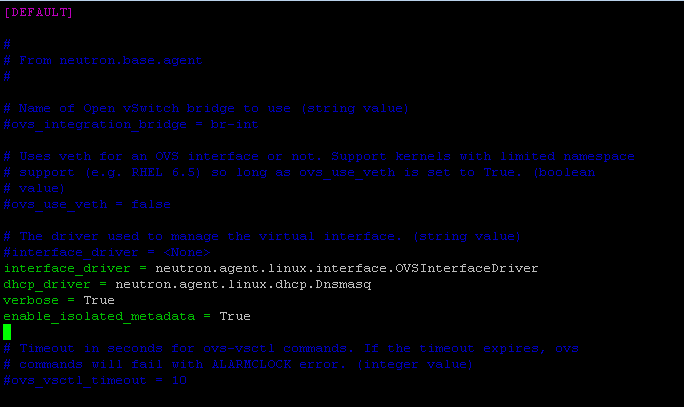
# vim /etc/neutron/dhcp\_agent.ini

interface\_driver = neutron.agent.linux.interface.OVSInterfaceDriver

dhcp\_driver = neutron.agent.linux.dhcp.Dnsmasq

verbose = True

enable\_isolated\_metadata = True



**Step 17 :** **Editing neutron ml2 plugins file**

# vim /etc/neutron/plugins/ml2/ml2\_conf.ini

[DEFAULT]

verbose = true

[ml2]

type\_drivers = gre

tenant\_network\_types = gre

mechanism\_drivers = openvswitch

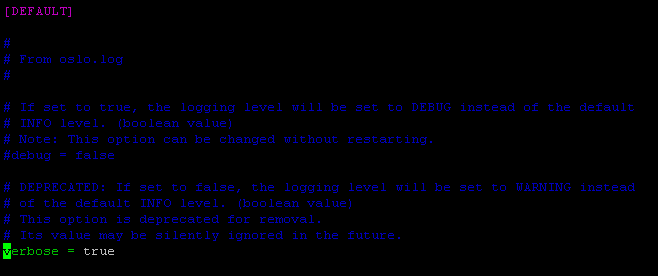
extension\_drivers = port\_security

[ml2\_type\_gre]

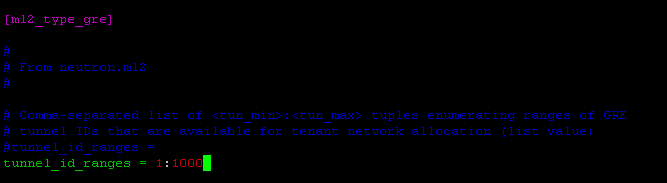
tunnel\_id\_ranges = 1:1000

[securitygroup]

enable\_ipset = true









**Step 18 :** **Editing neutron ml2 plugins file ovs config file**

# vim /etc/neutron/plugins/ml2/openvswitch\_agent.ini

[DEFAULT]

verbose = true

[agent]

tunnel\_types = gre

[ovs]

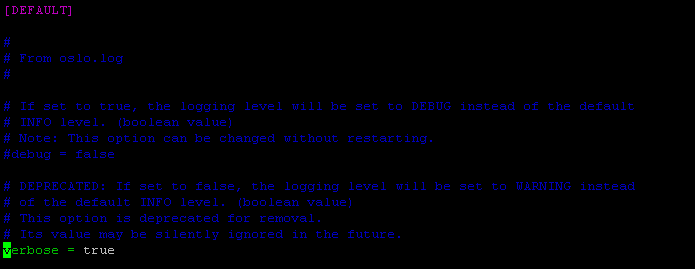
local\_ip = 192.168.0.60

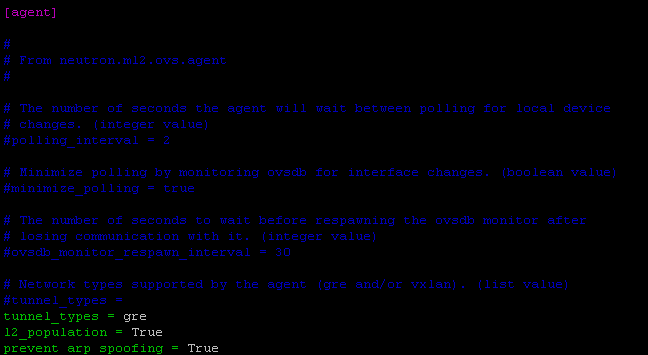
bridge\_mappings = external:br-ex

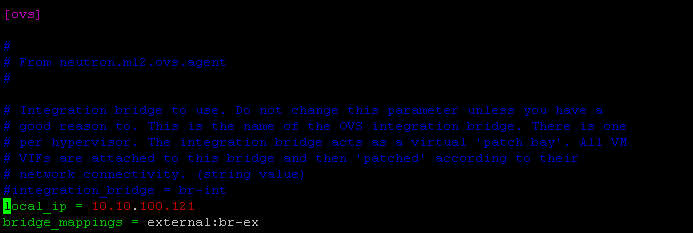
[securitygroup]

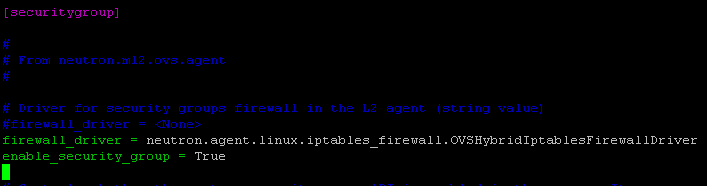
firewall\_driver = neutron.agent.linux.iptables\_firewall.OVSHybridIptablesFirewallDriver

enable\_security\_group = True









**Step 19:** **Editing neutron medata agent file**

# vim /etc/neutron/metadata\_agent.ini

[DEFAULT]

# The Neutron user information for accessing the Neutron API.

auth\_uri = http://192.168.0.60:5000

auth\_url = http://192.168.0.60:5000

memcached\_servers = 192.168.0.60:11211

auth\_type = password

project\_domain\_name = default

user\_domain\_name = default

project\_name = service

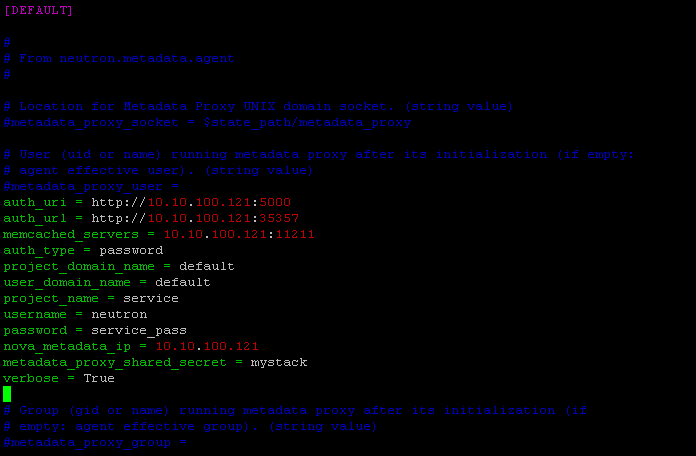
username = neutron

password = service\_pass

nova\_metadata\_ip = 192.168.0.60

metadata\_proxy\_shared\_secret = mystack

verbose = True



**Step 20 :** **Editing neutron configuration file**

# vim /etc/neutron/neutron.conf

[DEFAULT]

core\_plugin = ml2

service\_plugins = router

allow\_overlapping\_ips = true

verbose = true

auth\_strategy = keystone

rpc\_backend = rabbit

notify\_nova\_on\_port\_status\_changes = True

notify\_nova\_on\_port\_data\_changes = True

transport\_url = rabbit://openstack:rabbit@192.168.0.60

[keystone\_authtoken]

auth\_uri = http://192.168.0.60:5000

auth\_url = http://192.168.0.60:5000

memcached\_servers = 192.168.0.60:11211

auth\_type = password

project\_domain\_name = default

user\_domain\_name = default

project\_name = service

username = neutron

password = service\_pass

[database]

connection = mysql+pymysql://neutronUser:neutronPass@192.168.0.60/neutron

[nova]

auth\_url = http://192.168.0.60:5000

auth\_type = password

project\_domain\_name = default

user\_domain\_name = default

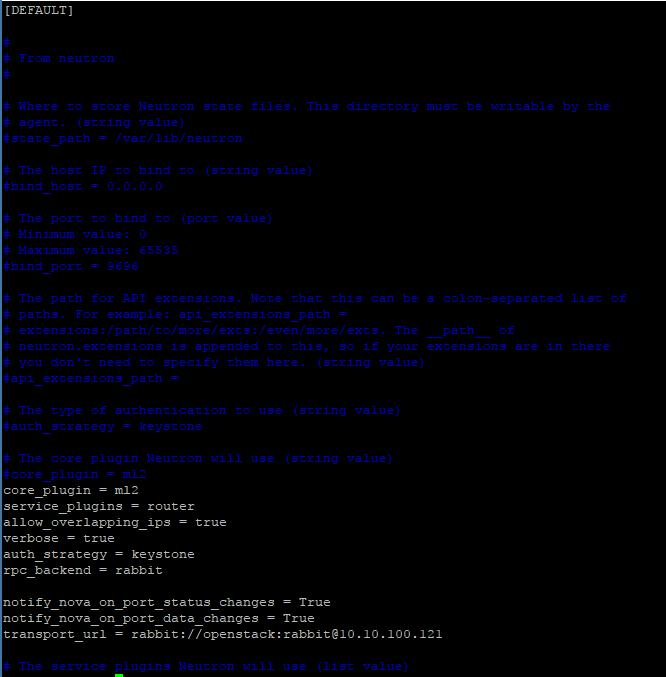
region\_name = RegionOne

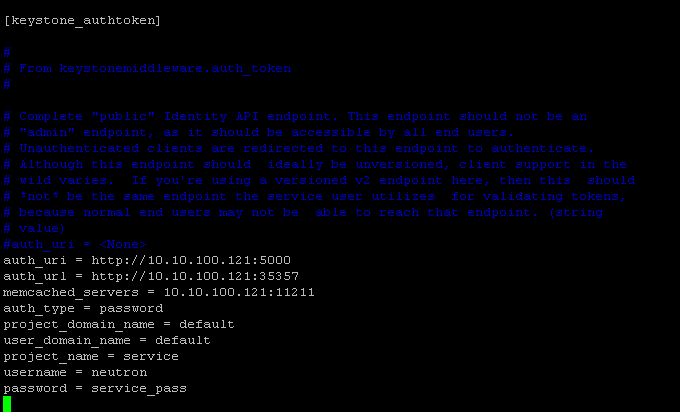
project\_name = service

username = nova

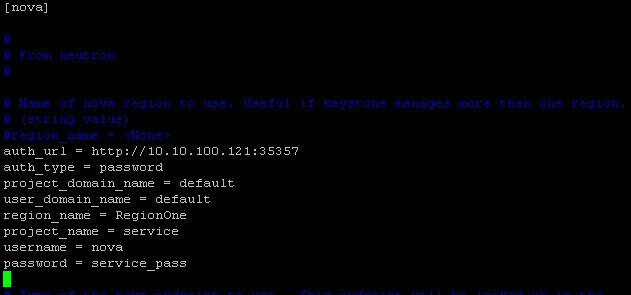
password = service\_pass

uncomment this line: connection = sqlite:////var/lib/neutron/neutron.









**Step 21 :** **Restarting the neutron server**

# service neutron-server restart;

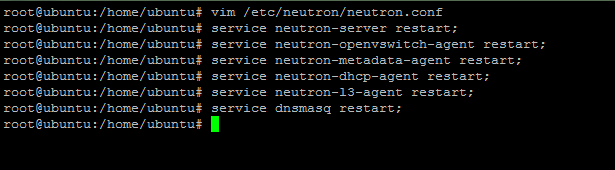
service neutron-openvswitch-agent restart;

service neutron-metadata-agent restart;

service neutron-dhcp-agent restart;

service neutron-l3-agent restart;

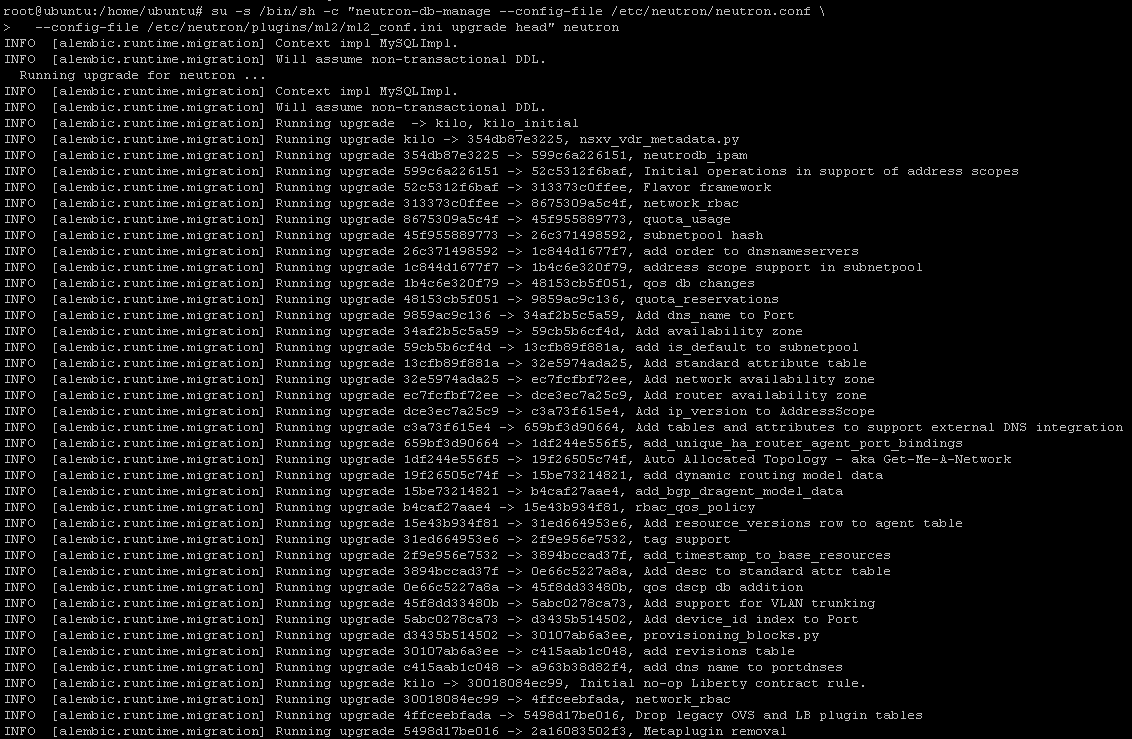
service dnsmasq restart;



**Step 27 :** **Synchronize the Database**

# su -s /bin/sh -c "neutron-db-manage --config-file /etc/neutron/neutron.conf \

--config-file /etc/neutron/plugins/ml2/ml2\_conf.ini upgrade head" neutron



**Step 28 : Check neutron agents**

# openstack network agent list

