

Cloud Application Development

Lab: CLI Neutron

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Neutron Commands

```
[root@localhost ~(keystone_admin)]# openstack network agent list
```

ID	Alive	State	Binary	Agent Type	Host	Availability Zone
11a8cc8f-87ac-4529-bba4-8c1db9ca38bc	:-)	UP	neutron-dhcp-agent	DHCP agent	localhost.localdomain	nova
14c9f4aa-8444-488c-83f8-f56966d8214d	:-)	UP	neutron-metering-agent	Metering agent	localhost.localdomain	None
17a87836-1592-4d83-a82c-9986acc94891	:-)	UP	neutron-metadata-agent	Metadata agent	localhost.localdomain	None
9dd323a-4888-465c-996d-a22d21c589eb	:-)	UP	neutron-openvswitch-agent	Open vSwitch agent	localhost.localdomain	None
cdd9e7c1-d983-494c-8c4a-64ca1cc5bc8d	:-)	UP	neutron-l3-agent	L3 agent	localhost.localdomain	nova

```
[root@localhost ~(keystone_admin)]#
```

```

[root@localhost ~(keystone_admin)]# systemctl status neutron-server
● neutron-server.service - OpenStack Neutron Server
   Loaded: loaded (/usr/lib/systemd/system/neutron-server.service; enabled; vendor preset: disabled)
   Active: active (running) since Sat 2023-04-22 21:11:16 IST; 2h 18min ago
     Main PID: 10816 (/usr/bin/python)
       Tasks: 7
      CGroup: /system.slice/neutron-server.service
              └─10816 /usr/bin/python2 /usr/bin/neutron-server --config-file /usr/share/neutron/neut...
                 10842 /usr/bin/python2 /usr/bin/neutron-server --config-file /usr/share/neutron/neut...
                 10845 /usr/bin/python2 /usr/bin/neutron-server --config-file /usr/share/neutron/neut...
                 10849 neutron-server: rpc worker (/usr/bin/python2 /usr/bin/neutron-server --config-...
                 10851 neutron-server: rpc worker (/usr/bin/python2 /usr/bin/neutron-server --config-...
                 10853 neutron-server: rpc worker (/usr/bin/python2 /usr/bin/neutron-server --config-...
                 10857 neutron-server: periodic worker (/usr/bin/python2 /usr/bin/neutron-server --co...

Apr 22 22:20:48 localhost.localdomain neutron-server[10816]: **kwargs)
Apr 22 22:20:48 localhost.localdomain neutron-server[10816]: File "/usr/lib/python2.7/site-packa...t
Apr 22 22:20:48 localhost.localdomain neutron-server[10816]: return self.request(url, 'GET', **k...)
Apr 22 22:20:48 localhost.localdomain neutron-server[10816]: File "/usr/lib/python2.7/site-packa...t
Apr 22 22:20:48 localhost.localdomain neutron-server[10816]: **endpoint_filter)
Apr 22 22:20:48 localhost.localdomain neutron-server[10816]: File "/usr/lib/python2.7/site-packa...t
Apr 22 22:20:48 localhost.localdomain neutron-server[10816]: auth = self._auth_required(auth, 'd...
Apr 22 22:20:48 localhost.localdomain neutron-server[10816]: File "/usr/lib/python2.7/site-packa...t
Apr 22 22:20:48 localhost.localdomain neutron-server[10816]: raise exceptions.MissingAuthPlugin(...)
Apr 22 22:20:48 localhost.localdomain neutron-server[10816]: MissingAuthPlugin: An auth plugin i...l
Hint: Some lines were ellipsized, use -l to show in full.
[root@localhost ~(keystone_admin)]# _

```

```

        options: {peer=phy-br-ex}
    Port "tapf64c330c-2c"
        tag: 3
        Interface "tapf64c330c-2c"
            type: internal
    Port "qg-5821ac28-0d"
        tag: 4
        Interface "qg-5821ac28-0d"
            type: internal
    Bridge br-ex
        Controller "tcp:127.0.0.1:6633"
            is_connected: true
        fail_mode: secure
        datapath_type: system
    Port "enp0s3"
        Interface "enp0s3"
    Port br-ex
        Interface br-ex
            type: internal
    Port phy-br-ex
        Interface phy-br-ex
            type: patch
            options: {peer=int-br-ex}
    Bridge br-tun
        Controller "tcp:127.0.0.1:6633"
            is_connected: true
        fail_mode: secure
        datapath_type: system
    Port br-tun
        Interface br-tun
            type: internal
    Port patch-int
        Interface patch-int
            type: patch
            options: {peer=patch-tun}
    ovs_version: "2.12.0"
[root@localhost ~(keystone_admin)]#

```



```
[root@localhost ~(keystone_admin)]# ip netns
namespace
qdhcp-c1396ceb-65d1-45e3-83cb-169013f818ce (id: 0)
[root@localhost ~(keystone_admin)]# ip netns exec qdhcp-c1396ceb-65d1-45e3-83cb-169013f818ce ping 10
.5.5.2
PING 10.5.5.2 (10.5.5.2) 56(84) bytes of data.
64 bytes from 10.5.5.2: icmp_seq=1 ttl=64 time=0.096 ms
64 bytes from 10.5.5.2: icmp_seq=2 ttl=64 time=0.032 ms
64 bytes from 10.5.5.2: icmp_seq=3 ttl=64 time=0.050 ms
64 bytes from 10.5.5.2: icmp_seq=4 ttl=64 time=0.050 ms
64 bytes from 10.5.5.2: icmp_seq=5 ttl=64 time=0.048 ms
64 bytes from 10.5.5.2: icmp_seq=6 ttl=64 time=0.026 ms
64 bytes from 10.5.5.2: icmp_seq=7 ttl=64 time=0.027 ms
64 bytes from 10.5.5.2: icmp_seq=8 ttl=64 time=0.041 ms
^C
--- 10.5.5.2 ping statistics ---
8 packets transmitted, 8 received, 0% packet loss, time 7037ms
rtt min/avg/max/mdev = 0.026/0.046/0.096/0.021 ms
[root@localhost ~(keystone_admin)]# _
```

```
[root@localhost ~(keystone_admin)]# ip netns exec qdhcp-c1396ceb-65d1-45e3-83cb-169013f818ce ip addr
ess show
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
7: tap0dcbfed7-30: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1450 qdisc noqueue state UNKNOWN group defa
ult qlen 1000
    link/ether fa:16:3e:57:6b:0c brd ff:ff:ff:ff:ff:ff
    inet 10.5.5.2/24 brd 10.5.5.255 scope global tap0dcbfed7-30
        valid_lft forever preferred_lft forever
    inet6 fe80::f816:3eff:fe57:6b0c/64 scope link
        valid_lft forever preferred_lft forever
[root@localhost ~(keystone_admin)]# _
```

```
[root@localhost ~(keystone_admin)]# openstack router add subnet R2 subnet1
[root@localhost ~(keystone_admin)]#
```

```
[root@localhost ~(keystone_admin)]# ip netns exec grouter-7cc44dd1-fd89-4a93-bf79-f1e2dc5b738a ping
5.5.5.1
connect: Network is unreachable
[root@localhost ~(keystone_admin)]#
```

```
[root@localhost ~(keystone_admin)]# neutron router-gateway-set R2 external_network
neutron CLI is deprecated and will be removed in the future. Use openstack CLI instead.
Set gateway for router R2
[root@localhost ~(keystone_admin)]# _
```

```
[root@localhost ~(keystone_admin)]# openstack network list
```

ID	Name	Subnets
2dd49ba8-9fe7-4013-b6ce-56afd4918096	public	dc785206-71c2-4709-a14b-b5f771eebf2a
31ae4834-c620-4f9b-a7af-3733a5afbb0d	intnet	4f326dce-f8fa-4afa-bf86-b4e93d7222db
6fab1e4-f136-4f3d-bac8-827812db943c	anantnet	18e5742f-1781-4a24-a692-fdbf72509817

```
[root@localhost ~(keystone_admin)]# _
```

```
[root@localhost ~(keystone_admin)]# openstack server create --image cirros --flavor 1 --nic net-id=31ae4834-c620-4f9b-a7af-3733a5afbb0d inst1
```

Field	Value
OS-DCF:diskConfig	MANUAL
OS-EXT-AZ:availability_zone	
OS-EXT-SRV-ATTR:host	None
OS-EXT-SRV-ATTR:hypervisor_hostname	None
OS-EXT-SRV-ATTR:instance_name	
OS-EXT-STS:power_state	NOSTATE
OS-EXT-STS:task_state	scheduling
OS-EXT-STS:vm_state	building
OS-SRV-USG:launched_at	None
OS-SRV-USG:terminated_at	None
accessIPv4	
accessIPv6	
addresses	
adminPass	uJC87hBEaytd
config_drive	
created	2023-04-22T18:28:36Z
flavor	m1.tiny (1)
hostId	
id	bc4a5120-00d0-4b59-0011-ad90be5f6c1b
image	cirros (415e11f1-3819-4986-a42e-d2d402c60e7f)
key_name	None
name	inst1
progress	0
project_id	cd18aa9de06a4e0e88635a0f6fe9d987
properties	
security_groups	name='default'
status	BUILD
updated	2023-04-22T18:28:37Z
user_id	9ca7b60be5f04c09ba0d7f01b55bee03
volumes_attached	

```
[root@localhost ~(keystone_admin)]# _
```

```
[root@localhost ~(keystone_admin)]# openstack security group list
```

ID	Tags	Name	Description	Project
4c41bfd6-375d-4d5d-84c0-5f7f9799db17	[]	default	Default security group	cd18aa9de06a4e0e88635a0f6fe9d987
82734ba9-7f06-4ba0-96ac-d532cd0100ca	[]	default	Default security group	407cc2c340764044b4790e3261d87e1c
cd1fed79-4092-4600-a8c1-c4b4caef14ad	[]	default	Default security group	a6037c2704a14dd1af56f2bed5c293a4

```
[root@localhost ~(keystone_admin)]#
```

```
[root@localhost ~(keystone_admin)]# openstack project list
+-----+
| ID | Name |
+-----+
| 487ce2e340764844b4790e3261d87e1c | services |
| a6837c2704a14dd1af56f2bed5c293a4 | poc |
| cd18aa9dc06a4c0e88635a0f6fe9d987 | admin |
+-----+
[root@localhost ~(keystone_admin)]#
```

```
+-----+
| ID | Tags | Name | Description | Project |
+-----+
| 4c11bfd6-375d-4d5d-84c0-5f7f9799db17 | default | Default security group | cd18aa9dc06a4c0e88635a0f6fe9d987 |
| 82734ba9-7f86-4ba0-96ac-d532cd8180ea | default | Default security group | 487ce2e340764844b4790e3261d87e1c |
| cd1fed79-4892-4600-a8e1-e4b4eacf14ad | default | Default security group | a6837c2704a14dd1af56f2bed5c293a4 |
+-----+
```

```
[root@localhost ~(keystone_admin)]# openstack security group rule create --src-ip 0.0.0.0 --protocol icmp --ingress cd1fed79-4892-4600-a8e1-e4b4eacf14ad
usage: openstack security group rule create [-h]
      [-f {json,shell,table,value,yaml}]
      [-c COLUMN]
      [--max-width <integer>]
      [--fit-width] [--print-empty]
      [--noindent] [--prefix PREFIX]
      [--remote-ip <ip-address>] [--remote-group <group>]
      [--description <description>]
      [--dst-port <port-range>]
      [--icmp-type <icmp-type>]
      [--icmp-code <icmp-code>]
      [--protocol <protocol>]
      [--ingress | --egress]
      [--ethertype <ethertype>]
      [--project <project>]
      [--project-domain <project-domain>]
      <group>
openstack security group rule create: error: unrecognized arguments: --src-ip cd1fed79-4892-4600-a8e1-e4b4eacf14ad
[root@localhost ~(keystone_admin)]#
```

```
[root@localhost ~(keystone_admin)]# ip netns
qrouter-7cc44dd1-fd09-4a93-bf79-f1e2dc5b730a (id: 4)
qdhcp-31ae4034-c620-4f9b-a7af-3733a5afb08d (id: 3)
qrouter-5b0d206c-9223-400b-a595-dd21fb00911b (id: 2)
qdhcp-2dd49ba0-9fe7-4013-b6ce-56afd4918096 (id: 1)
qdhcp-6fabbe4-f136-4f3d-bac0-827012db943c (id: 0)
[root@localhost ~(keystone_admin)]# ip netns exec qrouter-7cc44dd1-fd09-4a93-bf79-f1e2dc5b730a ssh c
irros@10.5.5.1
ssh: connect to host 10.5.5.1 port 22: Connection refused
[root@localhost ~(keystone_admin)]#
```

```

root@localhost ~(keystone_admin)l# ping 10.0.0.247
bash: ping: command not found
root@localhost ~(keystone_admin)l# ping 10.0.0.247
PING 10.0.0.247 (10.0.0.247) 56(84) bytes of data.

```

```

root@localhost ~(keystone_admin)l# openstack subnet list
+-----+-----+-----+-----+
| ID                | Name      | Network                                     | Subnet |
+-----+-----+-----+-----+
| 18e5742f-1701-4a24-a692-fdbf72589817 | mysub     | 6fabbb1e4-f136-4f3d-bac8-827812db943c | 10.0.0.0/24 |
| 4f326dcc-f8fa-4afa-bf86-b4e93d7222db | subnet1   | 31ae4834-c620-4f9b-a7af-3733a5afb8bd | 10.5.5.0/24 |
| dc785286-71c2-4709-a14b-b5f771eebf2a | mysub     | 2dd49ba0-9fe7-4013-b6ce-56afd4918896 | 14.0.0.0/24 |
+-----+-----+-----+-----+
root@localhost ~(keystone_admin)l# _

```

```

root@localhost ~(keystone_admin)l# openstack subnet list
+-----+-----+-----+-----+
| ID                | Name      | Network                                     | Subnet |
+-----+-----+-----+-----+
| 18e5742f-1701-4a24-a692-fdbf72589817 | mysub     | 6fabbb1e4-f136-4f3d-bac8-827812db943c | 10.0.0.0/24 |
| 4f326dcc-f8fa-4afa-bf86-b4e93d7222db | subnet1   | 31ae4834-c620-4f9b-a7af-3733a5afb8bd | 10.5.5.0/24 |
| dc785286-71c2-4709-a14b-b5f771eebf2a | mysub     | 2dd49ba0-9fe7-4013-b6ce-56afd4918896 | 14.0.0.0/24 |
+-----+-----+-----+-----+
root@localhost ~(keystone_admin)l# openstack floating ip create --subnet 4f326dcc-f8fa-4afa-bf86-b4e93d7222db --floating-ip-address 192.168.0.110
usage: openstack floating ip create [-h] [-f {json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--fit-width] [--print-empty] [--noindent]
                                     [--prefix PREFIX] [--subnet <subnet>]
                                     [--port <port>]
                                     [--floating-ip-address <ip-address>]
                                     [--fixed-ip-address <ip-address>]
                                     [--qos-policy <qos-policy>]
                                     [--description <description>]
                                     [--project <project>]
                                     [--dns-domain <dns-domain>]
                                     [--dns-name <dns-name>]
                                     [--project-domain <project-domain>]
                                     [--tag <tag> | --no-tag]
                                     <network>
openstack floating ip create: error: too few arguments
root@localhost ~(keystone_admin)l# clear

```

```
[root@localhost ~(keystone_admin)]# openstack ip availability list --project poc
+-----+-----+-----+-----+
| Network ID | Network Name | Total IPs | Used IPs |
+-----+-----+-----+-----+
| 31ae4834-c628-4f9b-a7af-3733a5afbb8d | intnet | 253 | 2 |
+-----+-----+-----+-----+
[root@localhost ~(keystone_admin)]#
```

```

| network flavor profile create |
| network flavor profile delete |
| network flavor profile list |
| network flavor profile set |
| network flavor profile show |
| network flavor remove profile |
| network flavor set |
| network flavor show |
| network list |
| network meter create |
| network meter delete |
| network meter list |
| network meter rule create |
| network meter rule delete |
| network meter rule list |
| network meter rule show |
| network meter show |
| network qos policy create |
| network qos policy delete |
| network qos policy list |
| network qos policy set |
| network qos policy show |
| network qos rule create |
| network qos rule delete |
| network qos rule list |
| network qos rule set |
| network qos rule show |
| network qos rule type list |
| network qos rule type show |
| network rbac create |
| network rbac delete |
| network rbac list |
| network rbac set |
| network rbac show |
| network segment create |
| network segment delete |
root@localhost ~(keystone_admin)]#
```