

Self

```
. admin-openrc
openstack network create --share \
--provider-physical-network provider \
--provider-network-type flat provider
```

```
openstack subnet create \
--network provider \
--subnet-range 192.168.1.0/24 provider \
--allocation-pool start=192.168.1.111,end=192.168.1.115 \
--gateway 192.168.1.1 \
--dns-nameserver 119.29.29.29
```

```
. demo-openrc
openstack network create selfservice
```

```
openstack subnet create --network selfservice \
--dns-nameserver 119.29.29.29 --gateway 172.16.1.1 \
--subnet-range 172.16.1.0/24 selfservice
```

```
. admin-openrc
neutron net-update provider --router:external
```

```
. demo-openrc
openstack router create router
neutron router-interface-add router selfservice
neutron router-gateway-set router provider
```

```
. admin-openrc
neutron net-update provider --router:external
```

```
. demo-openrc
openstack router create router
neutron router-interface-add router selfservice
neutron router-gateway-set router provider
```

Virfty

```
. admin-openrc  
ip netns  
neutron router-port-list router  
ping -c 4 203.0.113.102
```

Flavor

```
openstack flavor create --id 0 --vcpus 1 --ram 64 --disk 1 m1.nano
```

Generate a key pair

```
. demo-openrc  
ssh-keygen -q -N ""  
openstack keypair create --public-key ~/.ssh/id_rsa.pub mykey  
openstack keypair list
```

Security group rules

```
openstack security group rule create --proto icmp default  
openstack security group rule create --proto tcp --dst-port 22 default
```

```
. demo-openrc  
openstack flavor list  
openstack image list  
openstack network list  
openstack security group list
```

```
openstack server create \  
--flavor m1.nano \  
--image cirros \  
--nic net-id=9dc53aef-d0a0-4305-ba1c-742d35256ceb \  
--security-group default \  
--key-name mykey \  
selfservice-instance
```

```
openstack server list
```

```
openstack console url show selfservice-instance  
ping -c 4 172.16.1.1  
ping -c 4 www.baidu.com
```

```
openstack floating ip create provider  
openstack server add floating ip selfservice-instance 192.168.1.112  
openstack server list
```

```
ping -c 4 192.168.1.112
ssh cirros@192.168.1.112
```

Block

```
. demo-openrc
openstack volume create --size 1 volume1
openstack volume list
```

```
openstack server add volume selfservice-instance volume1
openstack volume list
```