Task1——边缘计算

第一次周报中提到的问题详细描述及解决

- 2020.7.14
- 郭雅楠

之前的问题已得到解决

主要原因:

- DNS服务器列表配置的顺序，导致域名解析错误
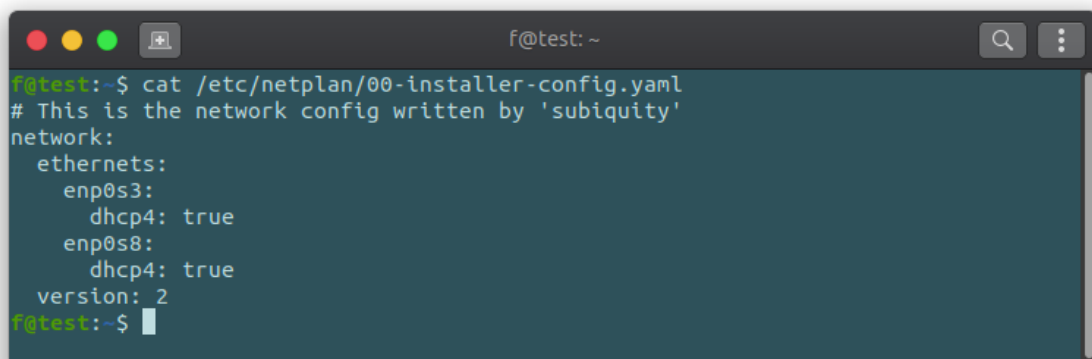
仍然存在的问题

- 配置静态IP后丢包严重，暂时不知道原因

之前存在的问题描述

虚拟机默认网络配置信息

网络信息

enp0s3是桥接的宿主机的网络，enp0s8是在VirtualBox中定义的网络

默认情况下，虚拟机可以连接到公网

```
f@test:~$ ping dx3906.tech
PING dx3906.tech (172.67.192.238) 56(84) bytes of data.
64 bytes from 172.67.192.238 (172.67.192.238): icmp_seq=1 ttl=51 time=352 ms
64 bytes from 172.67.192.238 (172.67.192.238): icmp_seq=2 ttl=51 time=282 ms
64 bytes from 172.67.192.238 (172.67.192.238): icmp_seq=3 ttl=51 time=298 ms
64 bytes from 172.67.192.238 (172.67.192.238): icmp_seq=4 ttl=51 time=322 ms
64 bytes from 172.67.192.238 (172.67.192.238): icmp_seq=5 ttl=51 time=343 ms
^C
--- dx3906.tech ping statistics ---
6 packets transmitted, 5 received, 16.6667% packet loss, time 5002ms
rtt min/avg/max/mdev = 282.161/319.302/351.553/26.182 ms
f@test:~$
```

修改后的网络配置

```
f@test:~$ cat /etc/netplan/00-installer-config.yaml
# This is the network config written by 'subiquity'
network:
  ethernets:
    enp0s3:
      dhcp4: true
    enp0s8:
      dhcp4: false
      addresses: [192.168.56.16/24]
      gateway4: 192.168.56.2
      nameservers:
        addresses: [8.8.8.8, 8.8.4.4, 192.168.56.2]
  version: 2
f@test:~$
```

无法连接网络

```
f@test:~$ ping dx3906.tech
PING dx3906.tech (104.28.21.133) 56(84) bytes of data.
^C
--- dx3906.tech ping statistics ---
39 packets transmitted, 0 received, 100% packet loss, time 38893ms

f@test:~$ ping www.baidu.com
PING www.a.shifen.com (61.135.169.121) 56(84) bytes of data.
^C
--- www.a.shifen.com ping statistics ---
28 packets transmitted, 0 received, 100% packet loss, time 27632ms

f@test:~$
```

之前使用的配置，静态IP

```
8 # This is the network config written by 'subiquity'
7 network:
6   ethernets:
5     enp0s3:
4       dhcp4: false
3       addresses: [192.168.0.109/24]
2       gateway4: 192.168.0.1
1       nameservers:
9         addresses: [8.8.8.8, 8.8.4.4, 192.168.0.1]
1     enp0s8:
2       dhcp4: false
3       addresses: [192.168.56.16/24]
4       gateway4: 192.168.56.2
5       nameservers:
6         addresses: [8.8.8.8, 8.8.4.4, 192.168.56.2]
7   version: 2
~
-- INSERT --                                    9,23        All
```

这里显示DNS有问题，但是已经找到了原因，`8.8.8.8` 和 `8.8.4.4` 不可达，配置的dns服务器貌似只会取第一个地址


```
f@test:~$ sudo vim /etc/netplan/00-installer-config.yaml
f@test:~$ sudo  netplan apply
f@test:~$ ping www.baidu.com
ping: www.baidu.com: Temporary failure in name resolution
f@test:~$ sudo vim /etc/netplan/00-installer-config.yaml
f@test:~$
```

将DNS服务器地址修改后，只保留宿主机作为DNS服务器


```
f@test:~$ cat /etc/netplan/00-installer-config.yaml
# This is the network config written by 'subiquity'
network:
  ethernets:
    enp0s3:
      dhcp4: false
      addresses: [192.168.0.109/24]
      gateway4: 192.168.0.1
      nameservers:
        addresses: [192.168.0.1]
    enp0s8:
      dhcp4: false
      addresses: [192.168.56.16/24]
      gateway4: 192.168.56.2
      nameservers:
        addresses: [192.168.56.2]
  version: 2
f@test:~$
```

问题得到解决，但是丢包严重

```
f@test:~$ ping dx3906.tech
PING dx3906.tech (104.28.21.133) 56(84) bytes of data.
^C64 bytes from 104.28.21.133: icmp_seq=19 ttl=51 time=359 ms

--- dx3906.tech ping statistics ---
19 packets transmitted, 1 received, 94.7368% packet loss, time 18438ms
rtt min/avg/max/mdev = 358.707/358.707/358.707/0.000 ms
f@test:~$ ping www.baidu.com
PING www.a.shifen.com (61.135.169.125) 56(84) bytes of data.
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=1 ttl=54 time=19.8 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=35 ttl=54 time=20.8 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=37 ttl=54 time=20.0 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=39 ttl=54 time=20.4 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=79 ttl=54 time=27.8 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=81 ttl=54 time=20.6 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=84 ttl=54 time=20.7 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=119 ttl=54 time=21.2 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=121 ttl=54 time=20.8 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=123 ttl=54 time=20.8 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=125 ttl=54 time=20.5 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=159 ttl=54 time=20.5 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=161 ttl=54 time=20.6 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=163 ttl=54 time=20.5 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=165 ttl=54 time=20.8 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=199 ttl=54 time=20.7 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=201 ttl=54 time=20.9 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=203 ttl=54 time=20.3 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=205 ttl=54 time=20.4 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=239 ttl=54 time=20.5 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=241 ttl=54 time=20.7 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=243 ttl=54 time=20.2 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=245 ttl=54 time=20.2 ms
^C
--- www.a.shifen.com ping statistics ---
262 packets transmitted, 23 received, 91.2214% packet loss, time 272140ms
rtt min/avg/max/mdev = 19.793/20.846/27.816/1.514 ms
f@test:~$
```

```
f@test:~$ ping www.baidu.com
PING www.baidu.com (61.135.169.125) 56(84) bytes of data.
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=1 ttl=54 time=20.2 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=27 ttl=54 time=21.1 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=29 ttl=54 time=20.5 ms
64 bytes from 61.135.169.125 (61.135.169.125): icmp_seq=31 ttl=54 time=20.9 ms
^C
--- www.baidu.com ping statistics ---
32 packets transmitted, 4 received, 87.5% packet loss, time 31623ms
rtt min/avg/max/mdev = 20.162/20.660/21.061/0.352 ms
f@test:~$
```