VPN Lab

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Task1

```
[07/28/21]seed@VM:~/.../Labsetup$ dockps
5da09d8c85f3  host-192.168.60.6
6dce2baf1ba9  host-192.168.60.5
23bfd1a05d6d  client-10.9.0.5
019ac962d578  server-router
```

Host U 可以连上 VPN Server，但不能与 Host V 通信:

```
[07/28/21]seed@VM:~/.../Labsetup$ docksh 23b
root@23bfd1a05d6d:/# ping 10.9.0.11
PING 10.9.0.11 (10.9.0.11) 56(84) bytes of data.
64 bytes from 10.9.0.11: icmp_seq=1 ttl=64 time=0.917 ms
64 bytes from 10.9.0.11: icmp_seq=2 ttl=64 time=0.156 ms
64 bytes from 10.9.0.11: icmp_seq=3 ttl=64 time=0.305 ms
64 bytes from 10.9.0.11: icmp_seq=4 ttl=64 time=0.161 ms
64 bytes from 10.9.0.11: icmp_seq=5 ttl=64 time=0.161 ms
64 bytes from 10.9.0.11: icmp_seq=6 ttl=64 time=0.192 ms
64 bytes from 10.9.0.11: icmp_seq=7 ttl=64 time=0.181 ms
^C
--- 10.9.0.11 ping statistics ---
7 packets transmitted, 7 received, 0% packet loss, time 6098ms
rtt min/avg/max/mdev = 0.156/0.296/0.917/0.257 ms
root@23bfd1a05d6d:/# ping 192.168.60.5
PING 192.168.60.5 (192.168.60.5) 56(84) bytes of data.

^C
--- 192.168.60.5 ping statistics ---
48 packets transmitted, 0 received, 100% packet loss, time 48130ms
```

VPN Server 可以与 Host V 通信:

```
[07/28/21]seed@VM:~/.../Labsetup$ docksh 019
root@019ac962d578:/# ping 192.168.60.5
PING 192.168.60.5 (192.168.60.5) 56(84) bytes of data.
64 bytes from 192.168.60.5: icmp_seq=1 ttl=64 time=0.176 ms
64 bytes from 192.168.60.5: icmp_seq=2 ttl=64 time=0.095 ms
64 bytes from 192.168.60.5: icmp_seq=3 ttl=64 time=0.083 ms
64 bytes from 192.168.60.5: icmp_seq=4 ttl=64 time=0.067 ms
64 bytes from 192.168.60.5: icmp_seq=5 ttl=64 time=0.143 ms
64 bytes from 192.168.60.5: icmp_seq=6 ttl=64 time=0.158 ms
64 bytes from 192.168.60.5: icmp_seq=7 ttl=64 time=0.058 ms
^C
--- 192.168.60.5 ping statistics ---
7 packets transmitted, 7 received, 0% packet loss, time 6153ms
rtt min/avg/max/mdev = 0.058/0.111/0.176/0.043 ms
```

监听各个网络的流量:

```
root@019ac962d578:/# tcpdump -i eth0 -n
tcpdump: verbose output suppressed, use -v or -vv for full protocol decode
listening on eth0, link-type EN10MB (Ethernet), capture size 262144 bytes
```

```
02:39:26.563591 IP 10.9.0.1.5353 > 224.0.0.251.5353: 0 [9q] PTR (QM)? _ipps._tcp.local. PTR (QM)? _ftp._tcp.local. PTR (QM)?
_webdav._tcp.local. PTR (QM)? _webdavs._tcp.local. PTR (QM)? _sftp-ssh._tcp.local. PTR (QM)? _smb._tcp.local. PTR (QM)? _afpo
vertcp._tcp.local. PTR (QM)? _nfs._tcp.local. PTR (QM)? _ipp._tcp.local. (141)
02:39:29.034086 IP6 fe80::42:bbff:fe72:47e8.5353 > ff02::fb.5353: 0 [9q] PTR (QM)? _ipps._tcp.local. PTR (QM)? _ftp._tcp.loca
l. PTR (QM)? _webdav._tcp.local. PTR (QM)? _webdavs._tcp.local. PTR (QM)? _sftp-ssh._tcp.local. PTR (QM)? _smb._tcp.local. PT
R (QM)? _afpovertcp._tcp.local. PTR (QM)? _nfs._tcp.local. PTR (QM)? _ipp._tcp.local. (141)
02:39:35.248183 IP6 fe80::10ee:31ff:fe17:524c.5353 > ff02::fb.5353: 0 [9q] PTR (QM)? _ipps._tcp.local. PTR (QM)? _ftp._tcp.lo
cal. PTR (QM)? _webdav._tcp.local. PTR (QM)? _webdavs._tcp.local. PTR (QM)? _sftp-ssh._tcp.local. PTR (QM)? _smb._tcp.local.
PTR (QM)? _afpovertcp._tcp.local. PTR (QM)? _nfs._tcp.local. PTR (QM)? _ipp._tcp.local. (141)
02:39:55.129525 IP6 fe80::42:bbff:fe72:47e8 > ff02::2: ICMP6, router solicitation, length 16
02:40:11.518551 IP6 fe80::10ee:31ff:fe17:524c > ff02::2: ICMP6, router solicitation, length 16
02:47:58.603942 IP 10.9.0.1.5353 > 224.0.0.251.5353: 0 [9q] PTR (QM)? _ipps._tcp.local. PTR (QM)? _ftp._tcp.local. PTR (QM)?
_webdav._tcp.local. PTR (QM)? _webdavs._tcp.local. PTR (QM)? _sftp-ssh._tcp.local. PTR (QM)? _smb._tcp.local. PTR (QM)? _afpo
vertcp._tcp.local. PTR (QM)? _nfs._tcp.local. PTR (QM)? _ipp._tcp.local. (141)
02:48:01.036186 IP6 fe80::42:bbff:fe72:47e8.5353 > ff02::fb.5353: 0 [9q] PTR (QM)? _ipps._tcp.local. PTR (QM)? _ftp._tcp.loca
l. PTR (QM)? _webdav._tcp.local. PTR (QM)? _webdavs._tcp.local. PTR (QM)? _sftp-ssh._tcp.local. PTR (QM)? _smb._tcp.local. PT
R (QM)? _afpovertcp._tcp.local. PTR (QM)? _nfs._tcp.local. PTR (QM)? _ipp._tcp.local. (141)
02:48:07.253271 IP6 fe80::10ee:31ff:fe17:524c.5353 > ff02::fb.5353: 0 [9q] PTR (QM)? _ipps._tcp.local. PTR (QM)? _ftp._tcp.lo
cal. PTR (QM)? _webdav._tcp.local. PTR (QM)? _webdavs._tcp.local. PTR (QM)? _sftp-ssh._tcp.local. PTR (QM)? _smb._tcp.local.
PTR (QM)? _afpovertcp._tcp.local. PTR (QM)? _nfs._tcp.local. PTR (QM)? _ipp._tcp.local. (141)
02:48:39.431361 IP6 fe80::42:bbff:fe72:47e8 > ff02::2: ICMP6, router solicitation, length 16
02:49:44.962564 IP6 fe80::10ee:31ff:fe17:524c > ff02::2: ICMP6, router solicitation, length 16
```

Task2