MINISTÉRIO DA EDUCAÇÃO
SECRETARIA DE EDUCAÇÃO PROFISSIONAL E TECNOLÓGICA
INSTITUTO FEDERAL GOIANO - CAMPUS CERES
BACHARELADO EM SISTEMA DE INFORMAÇÃO

MONITORAMENTO DE REDE.

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CERES – GO

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Para a resolução dessa atividade fiz a utilização de 2 ip’s diferentes, que é as 2 redes diferentes.

Criei os arquivos route 1 e 3 com as devidas configurações de ip, de gateway e instalei o net-tools.

Na route 2, fiz a configuração do ipv4 e forward, instalei o net-tools também, adicionei o tcpdump, passei as configurações de rede e os gateways definidos nas outras routes.

No VagrantFile utilizei o IF ELSE IF para que ele distribua os arquivos .sh para suas respectivas vm’s e receba as configurações necessárias para a resolução do problema.

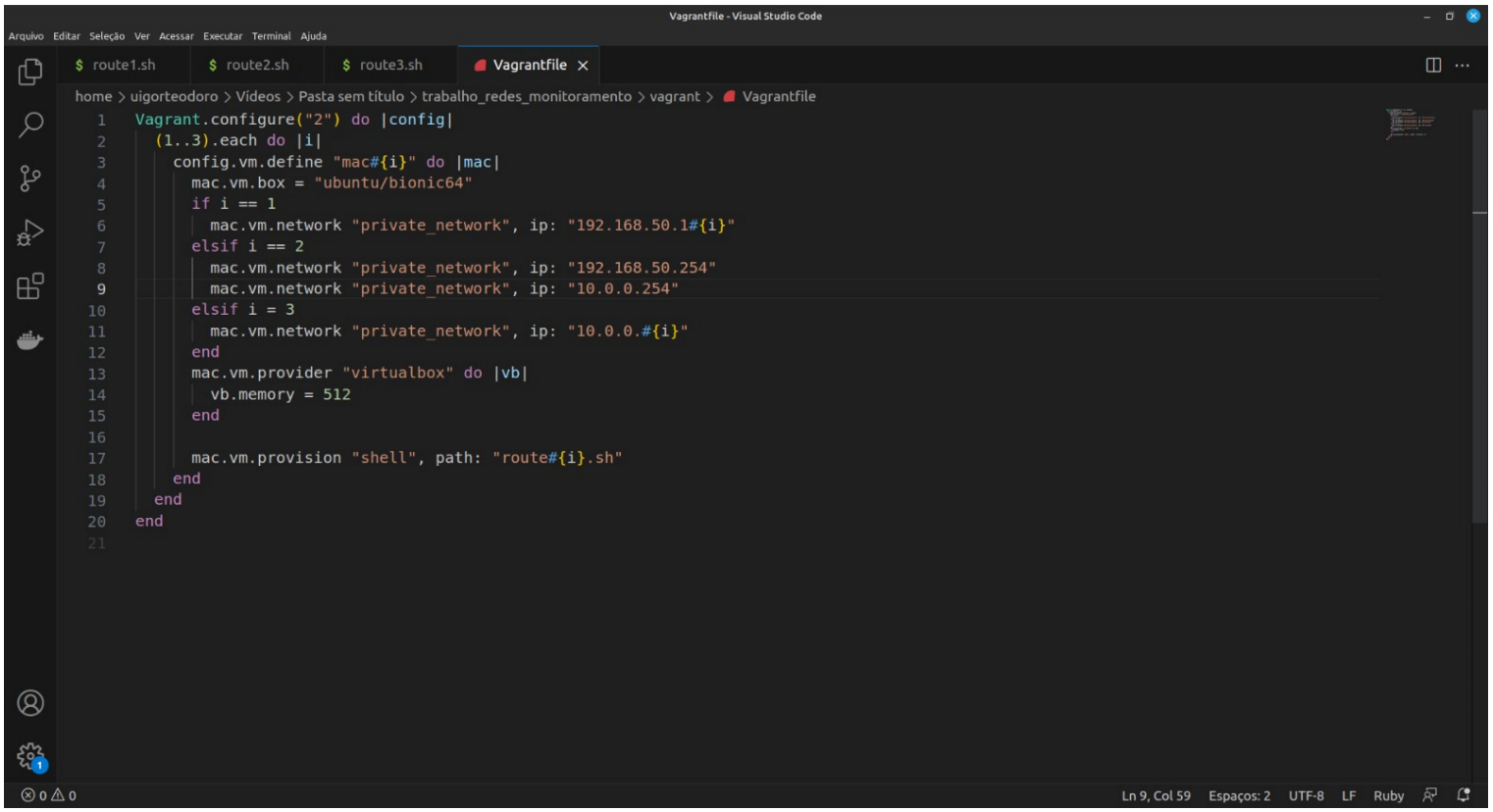
Com todas as configurações feitas no VagrantFile e nos .sh, faço no terminal o “vagrant up” para subir as vm’s e logo em seguida utilizo o “vagrant ssh” na vm 1 e executo o comando do tcpdump para que haja a captura de pacotes na vm 2 conforme na imagem 5.

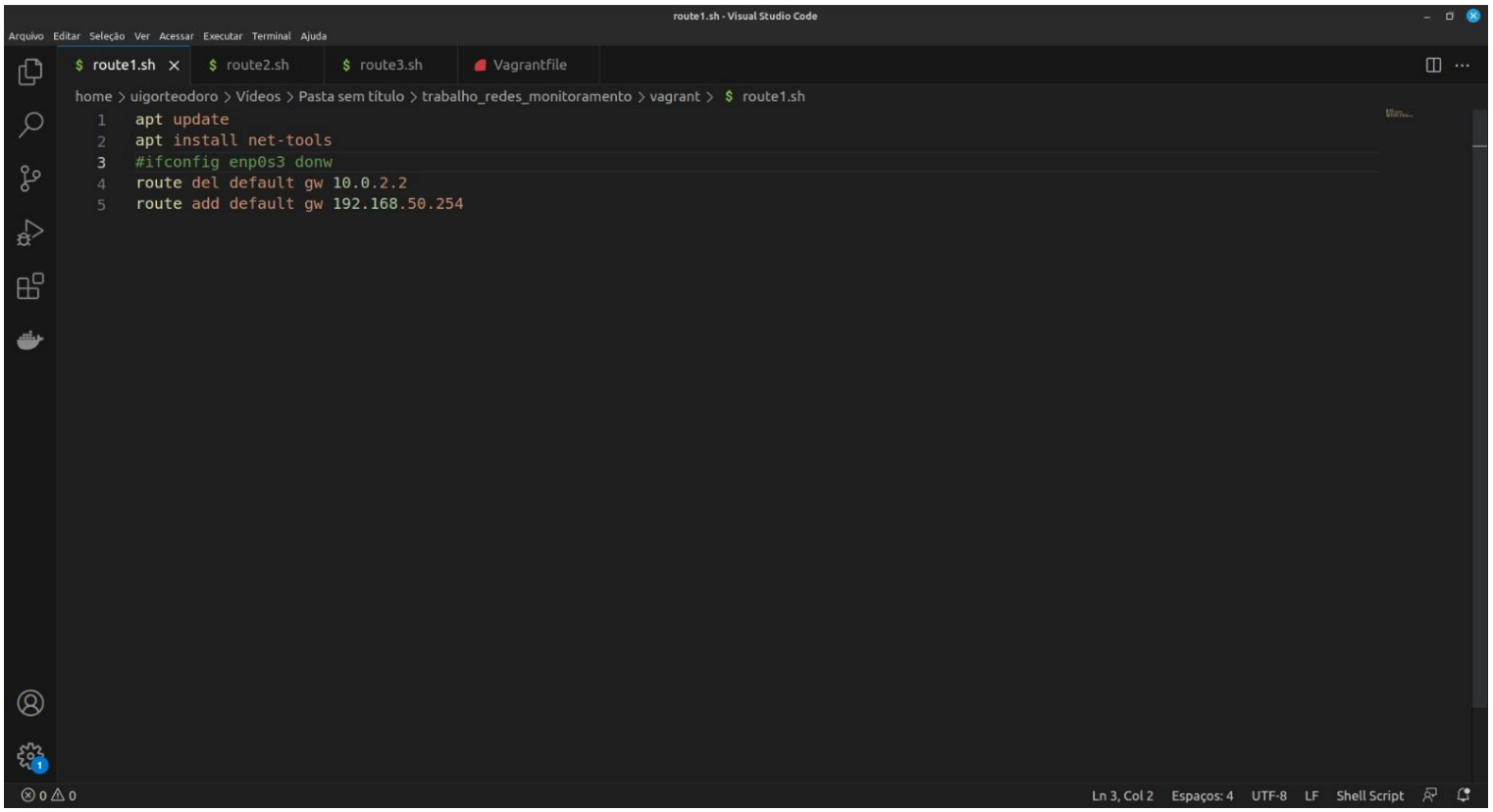
E com isso finalizo a resolução do problema proposto.

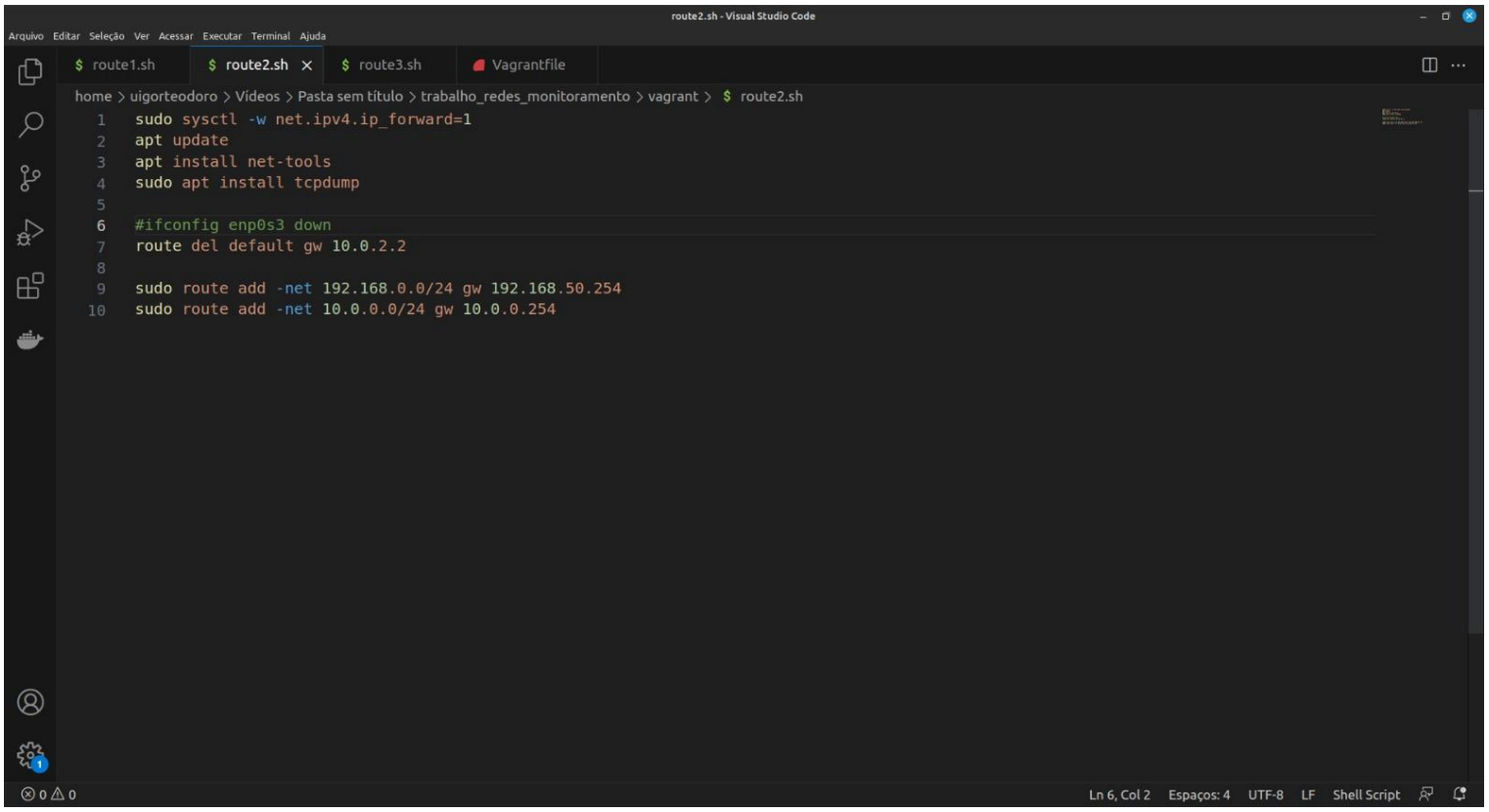
Segue abaixo o link do repositório do GitHub onde encontra-se os códigos e as imagens:

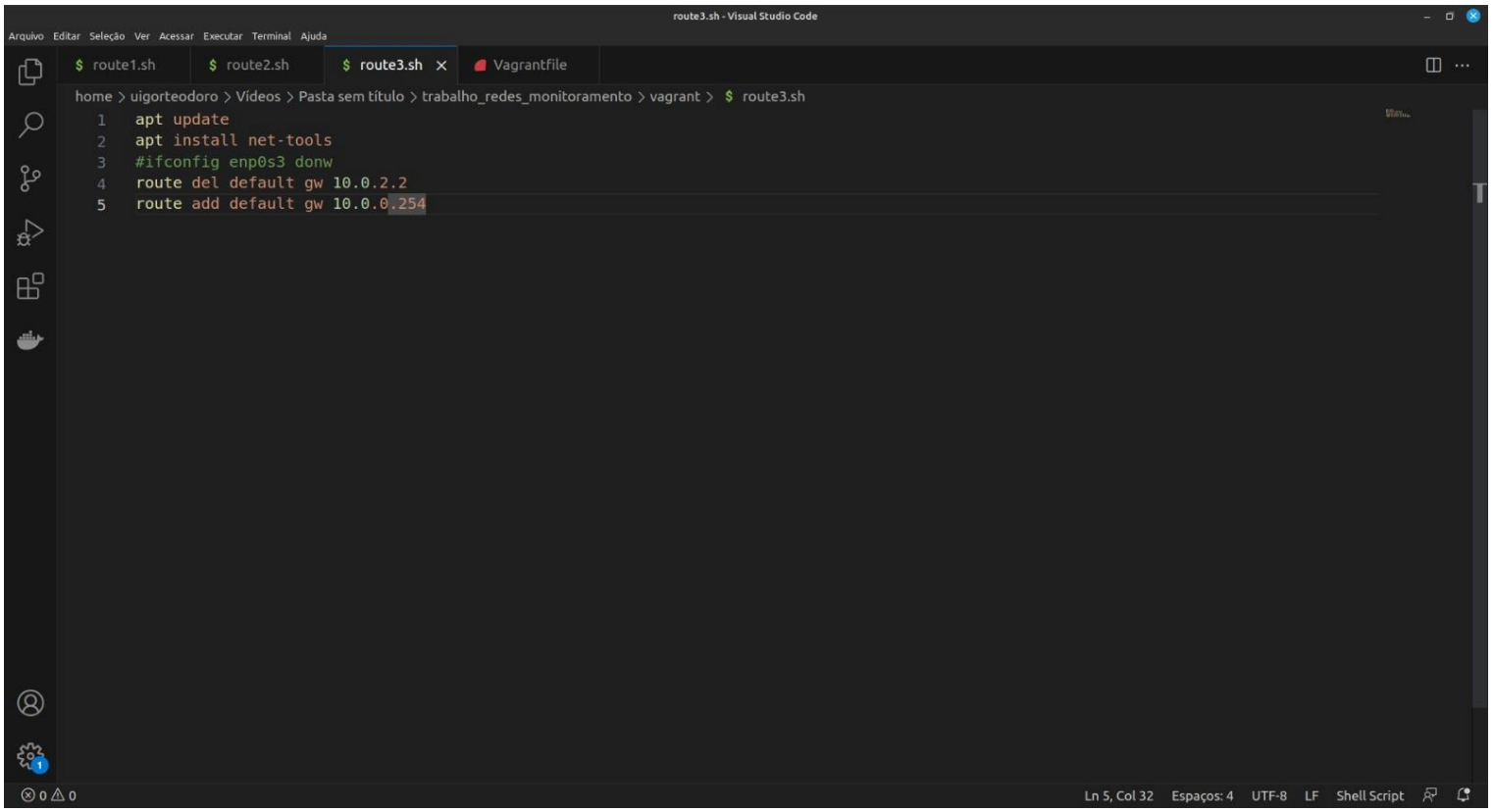
GitHub: https://github.com/luiz-alencar/trabalho_redes_monitoramento

Muito obrigado professor!






route2.sh - Visual Studio Code
Arquivo Editar Seleção Ver Acessar Executar Terminal Ajuda
$ route1.sh
$ route2.sh
$ route3.sh
Vagrantfile
home > uigorteodoro > Vídeos > Pasta sem título > trabalho_redes_monitoramento > vagrant > $ route2.sh
1 sudo sysctl -w net.ipv4.ip_forward=1
2 apt update
3 apt install net-tools
4 sudo apt install tcpdump
5
6 #ifconfig enp0s3 down
7 route del default gw 10.0.2.2
8
9 sudo route add -net 192.168.0.0/24 gw 192.168.50.254
10 sudo route add -net 10.0.0.0/24 gw 10.0.0.254
Ln 6, Col 2 Espaços: 4 UTF-8 LF Shell Script


route3.sh - Visual Studio Code
Arquivo Editar Seleção Ver Acessar Executar Terminal Ajuda
$ route1.sh
$ route2.sh
$ route3.sh
Vagrantfile
home > uigorteodoro > Vídeos > Pasta sem título > trabalho_redes_monitoramento > vagrant > $ route3.sh
1 apt update
2 apt install net-tools
3 #ifconfig enp0s3 donw
4 route del default gw 10.0.2.2
5 route add default gw 10.0.0.254
Ln 5, Col 32 Espaços: 4 UTF-8 LF Shell Script

```
vagrant@ubuntu-bionic: ~
Arquivo  Editar  Ver  Pesquisar  Terminal  Ajuda
vagrant@ubuntu-bionic:~$ sudo tcpdump -i enp0s8
tcpdump: verbose output suppressed, use -v or -vv for full protocol decode
listening on enp0s8, link-type EN10MB (Ethernet), capture size 262144 bytes
13:01:50.247384 IP 192.168.50.11 > 10.0.0.3: ICMP echo request, id 3088, seq 108, length 64
13:01:50.248016 IP 10.0.0.3 > 192.168.50.11: ICMP echo reply, id 3088, seq 108, length 64
13:01:50.432231 ARP, Request who-has ubuntu-bionic tell 192.168.50.11, length 46
13:01:50.432260 ARP, Reply ubuntu-bionic is-at 08:00:27:7c:31:d5 (oui Unknown), length 28
13:01:51.249526 IP 192.168.50.11 > 10.0.0.3: ICMP echo request, id 3088, seq 109, length 64
13:01:51.250420 IP 10.0.0.3 > 192.168.50.11: ICMP echo reply, id 3088, seq 109, length 64
13:01:52.258965 IP 192.168.50.11 > 10.0.0.3: ICMP echo request, id 3088, seq 110, length 64
13:01:52.259861 IP 10.0.0.3 > 192.168.50.11: ICMP echo reply, id 3088, seq 110, length 64
13:01:53.261395 IP 192.168.50.11 > 10.0.0.3: ICMP echo request, id 3088, seq 111, length 64
13:01:53.262196 IP 10.0.0.3 > 192.168.50.11: ICMP echo reply, id 3088, seq 111, length 64
13:01:54.263798 IP 192.168.50.11 > 10.0.0.3: ICMP echo request, id 3088, seq 112, length 64
13:01:54.264639 IP 10.0.0.3 > 192.168.50.11: ICMP echo reply, id 3088, seq 112, length 64
13:01:55.306845 IP 192.168.50.11 > 10.0.0.3: ICMP echo request, id 3088, seq 113, length 64
13:01:55.307617 IP 10.0.0.3 > 192.168.50.11: ICMP echo reply, id 3088, seq 113, length 64
13:01:56.309010 IP 192.168.50.11 > 10.0.0.3: ICMP echo request, id 3088, seq 114, length 64
13:01:56.309761 IP 10.0.0.3 > 192.168.50.11: ICMP echo reply, id 3088, seq 114, length 64
13:01:57.310039 IP 192.168.50.11 > 10.0.0.3: ICMP echo request, id 3088, seq 115, length 64
13:01:57.310883 IP 10.0.0.3 > 192.168.50.11: ICMP echo reply, id 3088, seq 115, length 64
13:01:58.312382 IP 192.168.50.11 > 10.0.0.3: ICMP echo request, id 3088, seq 116, length 64
13:01:58.313079 IP 10.0.0.3 > 192.168.50.11: ICMP echo reply, id 3088, seq 116, length 64
13:01:59.314683 IP 192.168.50.11 > 10.0.0.3: ICMP echo request, id 3088, seq 117, length 64
13:01:59.315372 IP 10.0.0.3 > 192.168.50.11: ICMP echo reply, id 3088, seq 117, length 64
13:02:00.316923 IP 192.168.50.11 > 10.0.0.3: ICMP echo request, id 3088, seq 118, length 64
13:02:00.317739 IP 10.0.0.3 > 192.168.50.11: ICMP echo reply, id 3088, seq 118, length 64
13:02:01.905680 IP uigorteodoro-550XDA.mdns > mdns.mcast.net.mdns: 0 [2q] PTR (QM)? _ipps._tcp.local. PTR (QM)? _ipp._tcp.local. (45)
13:02:05.459136 IP6 fe80::800:27ff:fe00:3.mdns > ff02::fb.mdns: 0 [2q] PTR (QM)? _ipps._tcp.local. PTR (QM)? _ipp._tcp.local. (45)
13:02:31.545845 IP 10.0.0.3 > 192.168.50.11: ICMP echo request, id 3103, seq 1, length 64
13:02:31.546352 IP 192.168.50.11 > 10.0.0.3: ICMP echo reply, id 3103, seq 1, length 64
13:02:32.547743 IP 10.0.0.3 > 192.168.50.11: ICMP echo request, id 3103, seq 2, length 64
13:02:32.548455 IP 192.168.50.11 > 10.0.0.3: ICMP echo reply, id 3103, seq 2, length 64
13:02:33.639611 IP 10.0.0.3 > 192.168.50.11: ICMP echo request, id 3103, seq 3, length 64
13:02:33.640367 IP 192.168.50.11 > 10.0.0.3: ICMP echo reply, id 3103, seq 3, length 64
```

```
vagrant@ubuntu-bionic: ~
Arquivo  Editar  Ver  Pesquisar  Terminal  Ajuda
vagrant@ubuntu-bionic:~$ ping 10.0.0.3
PING 10.0.0.3 (10.0.0.3) 56(84) bytes of data.
64 bytes from 10.0.0.3: icmp_seq=1 ttl=63 time=2.87 ms
64 bytes from 10.0.0.3: icmp_seq=2 ttl=63 time=1.95 ms
64 bytes from 10.0.0.3: icmp_seq=3 ttl=63 time=1.85 ms
64 bytes from 10.0.0.3: icmp_seq=4 ttl=63 time=1.78 ms
64 bytes from 10.0.0.3: icmp_seq=5 ttl=63 time=1.81 ms
64 bytes from 10.0.0.3: icmp_seq=6 ttl=63 time=1.51 ms
64 bytes from 10.0.0.3: icmp_seq=7 ttl=63 time=1.59 ms
64 bytes from 10.0.0.3: icmp_seq=8 ttl=63 time=1.58 ms
64 bytes from 10.0.0.3: icmp_seq=9 ttl=63 time=1.89 ms
64 bytes from 10.0.0.3: icmp_seq=10 ttl=63 time=1.36 ms
64 bytes from 10.0.0.3: icmp_seq=11 ttl=63 time=1.88 ms
64 bytes from 10.0.0.3: icmp_seq=12 ttl=63 time=1.72 ms
64 bytes from 10.0.0.3: icmp_seq=13 ttl=63 time=1.34 ms
64 bytes from 10.0.0.3: icmp_seq=14 ttl=63 time=1.63 ms
64 bytes from 10.0.0.3: icmp_seq=15 ttl=63 time=1.52 ms
64 bytes from 10.0.0.3: icmp_seq=16 ttl=63 time=1.62 ms
64 bytes from 10.0.0.3: icmp_seq=17 ttl=63 time=1.66 ms
64 bytes from 10.0.0.3: icmp_seq=18 ttl=63 time=1.27 ms
64 bytes from 10.0.0.3: icmp_seq=19 ttl=63 time=0.738 ms
64 bytes from 10.0.0.3: icmp_seq=20 ttl=63 time=1.67 ms
64 bytes from 10.0.0.3: icmp_seq=21 ttl=63 time=1.65 ms
64 bytes from 10.0.0.3: icmp_seq=22 ttl=63 time=1.75 ms
64 bytes from 10.0.0.3: icmp_seq=23 ttl=63 time=1.83 ms
64 bytes from 10.0.0.3: icmp_seq=24 ttl=63 time=1.74 ms
64 bytes from 10.0.0.3: icmp_seq=25 ttl=63 time=1.99 ms
64 bytes from 10.0.0.3: icmp_seq=26 ttl=63 time=0.882 ms
64 bytes from 10.0.0.3: icmp_seq=27 ttl=63 time=1.34 ms
64 bytes from 10.0.0.3: icmp_seq=28 ttl=63 time=1.54 ms
64 bytes from 10.0.0.3: icmp_seq=29 ttl=63 time=1.73 ms
64 bytes from 10.0.0.3: icmp_seq=30 ttl=63 time=1.27 ms
64 bytes from 10.0.0.3: icmp_seq=31 ttl=63 time=1.66 ms
64 bytes from 10.0.0.3: icmp_seq=32 ttl=63 time=1.75 ms
64 bytes from 10.0.0.3: icmp_seq=33 ttl=63 time=1.39 ms
64 bytes from 10.0.0.3: icmp_seq=34 ttl=63 time=1.07 ms
64 bytes from 10.0.0.3: icmp_seq=35 ttl=63 time=1.34 ms
64 bytes from 10.0.0.3: icmp_seq=36 ttl=63 time=1.66 ms
64 bytes from 10.0.0.3: icmp_seq=37 ttl=63 time=1.51 ms
64 bytes from 10.0.0.3: icmp_seq=38 ttl=63 time=1.46 ms
64 bytes from 10.0.0.3: icmp_seq=39 ttl=63 time=1.37 ms
64 bytes from 10.0.0.3: icmp_seq=40 ttl=63 time=1.57 ms
64 bytes from 10.0.0.3: icmp_seq=41 ttl=63 time=1.46 ms
```