Ferramentas de gerenciamento TCPIP

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Respostas da atividade de lab

1)

a)

```
192.168.15.6
enp3s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
          inet 192.168.15.6  netmask 255.255.255.0  broadcast 192.168.15.255
          inet6 2804:431:cff2:e359:aeee:ed7:b035:8547  prefixlen 64  scopeid 0x0<global>
          inet6 fe80::8353:5627:d855:35ad  prefixlen 64  scopeid 0x20<link>
          ether 34:97:f6:e9:d6:fb  txqueuelen 1000  (Ethernet)
          RX packets 422700  bytes 305469723 (291.3 MiB)
          RX errors 0  dropped 1  overruns 0  frame 0
          TX packets 308581  bytes 58556640 (55.8 MiB)
          TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

b)

O endereço mostrado era diferente. Porque nosso IP visto na rede de computadores é o do provedor de internet e o outro IP é somente o IP local.

c)

É endereço pelo qual todo o tráfego de minha rede local passa para se conectar com outras redes.

2)

a)

```
 ~ ping www.ietr.fr
PING vmebene3.univ-rennes1.fr (129.20.134.3) 56(84) bytes of data.
64 bytes from vmebene3.univ-rennes1.fr (129.20.134.3): icmp_seq=1 ttl=51 time=208 ms
64 bytes fro
m vmebene3.univ-rennes1.fr (129.20.134.3): icmp_seq=2 ttl=51 time=209 ms
64 bytes from vmebene3.univ-rennes1.fr (129.20.134.3): icmp_seq=3 ttl=51 time=206 ms
```

```
64 bytes from vmebene3.univ-rennes1.fr (129.20.134.3): icmp_seq=4 ttl=51 time=207 ms
64 bytes from vmebene3.univ-rennes1.fr (129.20.134.3): icmp_seq=5 ttl=51 time=207 ms
64 bytes from vmebene3.univ-rennes1.fr (129.20.134.3): icmp_seq=6 ttl=51 time=212 ms
64 bytes from vmebene3.univ-rennes1.fr (129.20.134.3): icmp_seq=7 ttl=51 time=207 ms
64 bytes from vmebene3.univ-rennes1.fr (129.20.134.3): icmp_seq=8 ttl=51 time=208 ms
64 bytes from vmebene3.univ-rennes1.fr (129.20.134.3): icmp_seq=9 ttl=51 time=208 ms
64 bytes from vmebene3.univ-rennes1.fr (129.20.134.3): icmp_seq=10 ttl=51 time=208 ms
64 bytes from vmebene3.univ-rennes1.fr (129.20.134.3): icmp_seq=11 ttl=51 time=219 ms
64 bytes from vmebene3.univ-rennes1.fr (129.20.134.3): icmp_seq=12 ttl=51 time=207 ms

--- vmebene3.univ-rennes1.fr ping statistics ---
12 packets transmitted, 12 received, 0% packet loss, time 11317ms
rtt min/avg/max/mdev = 205.632/208.676/219.232/3.533 ms
```

b)

A variável time informa o tempo de reposta do servidor para com o cliente.

c)

O TTL significa "Time to Live" e representa a quantidade de roteadores ou saltos que seu pacote passou para chegar ao servidor de destino decrementando o valor que o destino retornou sendo o padrao do S.O: 255 - sistema operacional unix 128.

d)

Podemos utilzar-lo como parametro de conectividade com outras redes, pois caso o comando retorne falha na conecçao ou falta de, ja temos como saber o problema.

3)

a)

Usando o comando sem o parametro "n" é retornado protocolo juntamenten com seu servidor DNS no fomato escrito e com ele mostra o numero do servidor DNS

4)

```
% [whois.apnic.net]
% Whois data copyright terms    http://www.apnic.net/db/dbcopyright.html

% Information related to '103.115.76.0 - 103.115.79.255'

% Abuse contacts for '103.115.76.0 - 103.115.79.255' are 'email@seagroup.com', 'email@seagr
```

```
inetnum:        103.115.76.0 - 103.115.79.255
netname:        SHOPEE-SG
descr:          SHOPEE SINGAPORE PRIVATE LIMITED
country:        SG
org:            ORG-SSPL12-AP
admin-c:        SSPL16-AP
tech-c:         SSPL16-AP
abuse-c:        AS2394-AP
status:         ALLOCATED PORTABLE
remarks:        --------------------------------------------------------
remarks:        To report network abuse, please contact mnt-irt
remarks:        For troubleshooting, please contact tech-c and admin-c
remarks:        Report invalid contact via www.apnic.net/invalidcontact
remarks:        --------------------------------------------------------
mnt-by:         APNIC-HM
mnt-lower:      MAINT-SHOPEE-SG
mnt-routes:     MAINT-SHOPEE-SG
mnt-irt:        IRT-SHOPEE-SG
last-modified:  2020-06-24T11:30:32Z
source:         APNIC

irt:            IRT-SHOPEE-SG
address:        1 Fusionopolis Place, # 17-10, Galaxis, SINGAPORE 138522
e-mail:         email@seagroup.com
e-mail:         email@seagroup.com
abuse-mailbox:  email@seagroup.com
abuse-mailbox:  email@seagroup.com
admin-c:        SSPL16-AP
tech-c:         SSPL16-AP
auth:           # Filtered
remarks:        email@seagroup.com was validated on 2020-06-24
remarks:        email@seagroup.com was validated on 2020-07-03
mnt-by:         MAINT-SHOPEE-SG
last-modified:  2020-07-03T02:19:05Z
source:         APNIC

organisation:   ORG-SSPL12-AP
org-name:       SHOPEE SINGAPORE PRIVATE LIMITED
country:        SG
address:        1 Fusionopolis Place, # 17-10, Galaxis
phone:          +65-6270-8100
e-mail:         email@seagroup.com
mnt-ref:        APNIC-HM
mnt-by:         APNIC-HM
last-modified:  2019-10-25T12:56:58Z
```

```
source:          APNIC

role:            ABUSE SHOPEESG
address:         1 Fusionopolis Place, # 17-10, Galaxis, SINGAPORE 138522
country:         ZZ
phone:           +000000000
e-mail:          email@seagroup.com
e-mail:          email@seagroup.com
admin-c:         SSPL16-AP
tech-c:          SSPL16-AP
nic-hdl:         AS2394-AP
remarks:         Generated from irt object IRT-SHOPEE-SG
abuse-mailbox:   email@seagroup.com
abuse-mailbox:   email@seagroup.com
mnt-by:          APNIC-ABUSE
last-modified:   2020-06-24T11:30:31Z
source:          APNIC

role:            SHOPEE SINGAPORE PRIVATE LIMITED administrator
address:         1 Fusionopolis Place, #17-10, Galaxis, SINGAPORE  138522
country:         SG
phone:           +65-6270-8100
fax-no:          +65-6270-8100
e-mail:          email@shopee.com
admin-c:         SSPL16-AP
tech-c:          SSPL16-AP
nic-hdl:         SSPL16-AP
mnt-by:          MAINT-SHOPEE-SG
last-modified:   2018-05-14T04:34:20Z
source:          APNIC

% Information related to '103.115.78.0/24AS138341'

route:           103.115.78.0/24
origin:          AS138341
descr:           SHOPEE SINGAPORE PRIVATE LIMITED
                 1 Fusionopolis Place, #17-10, Galaxis
mnt-by:          MAINT-SHOPEE-SG
last-modified:   2018-12-06T07:21:05Z
source:          APNIC

% This query was served by the APNIC Whois Service version 1.88.15-SNAPSHOT (WHOIS-US3)
```

5)

a)

```
~ tracepath -b www.lsi.usp.br
 1?: [LOCALHOST]                           pmtu 1492
 1:  _gateway (192.168.15.1)                              0.360ms
 1:  _gateway (192.168.15.1)                              0.232ms
 2:  no reply
 3:  187-100-176-230.dsl.telesp.net.br (187.100.176.230)  2.220ms
 4:  152-255-177-85.user.vivozap.com.br (152.255.177.85)  4.972ms
 5:  187-100-53-194.dsl.telesp.net.br (187.100.53.194)    28.516ms
 6:  as28571.saopaulo.sp.ix.br (187.16.216.20)            8.028ms asymm  5
 7:  core-cce.uspnet.usp.br (143.107.251.30)              6.160ms asymm  5
 8:  no reply
 9:  no reply
10:  www.lsi.usp.br (143.107.161.160)                     4.348ms reached
     Resume: pmtu 1492 hops 10 back 8
```

b)

Passou por 7 IPs diferentes

c)

Sim. Porque alguns IPs por questao de segurança sao ocultos

d)

Obtive o seguinte output:

```
Usage
  tracepath [options] <destination>

 Options:
   -4              use IPv4
   -6              use IPv6
   -b              print both name and ip
   -l <length>     use packet <length>
   -m <hops>       use maximum <hops>
   -n              no dns name resolution
   -p <port>       use destination <port>
   -V              print version and exit
   <destination>   dns name or ip address

 For more details see tracepath(8).
```

6)

```
~ tracepath www.ietr.fr
 1?: [LOCALHOST]                          pmtu 1492
 1:  _gateway                                         0.362ms
 1:  _gateway                                         0.412ms
 2:  no reply
 3:  187-100-176-222.dsl.telesp.net.br               6.441ms
 4:  no reply
 5:  152-255-171-234.user.vivozap.com.br             2.957ms
 6:  ???                                            13.761ms asymm   7
 7:  ???                                           120.904ms
 8:  ???                                           129.252ms asymm   7
 9:  ae5.cr6-mia1.ip4.gtt.net                      118.004ms
10:  et-3-3-0.cr4-par7.ip4.gtt.net                 219.657ms asymm 16
11:  renater-gw-ix1.gtt.net                        221.931ms asymm 14
12:  te0-1-0-1-ren-nr-caen-rtr-091.noc.renater.fr  211.502ms asymm 13
13:  te0-1-0-9-ren-nr-rennes-rtr-091.noc.renater.fr 231.452ms asymm 15
14:  et-3-3-0.cr4-par7.ip4.gtt.net                 218.816ms asymm 16
15:  no reply
16:  no reply
17:  no reply
18:  no reply
19:  no reply
20:  no reply
21:  no reply
22:  no reply
23:  no reply
24:  no reply
25:  no reply
26:  no reply
27:  no reply
28:  no reply
29:  no reply
30:  no reply
     Too many hops: pmtu 1492
     Resume: pmtu 1492

%%
%% This is the AFNIC Whois server.
%%
%% complete date format : YYYY-MM-DDThh:mm:ssZ
%% short date format    : DD/MM
%% version              : FRNIC-2.5
%%
%% Rights restricted by copyright.
```

```
%% See https://www.afnic.fr/en/products-and-services/services/whois/whois-special-notice/
%%
%% Use '-h' option to obtain more information about this service.
%%
%% [REQUEST] >> ietr.fr
%%
%% RL Net [#########] - RL IP [########.]
%%

domain:       ietr.fr
status:       ACTIVE
hold:         NO
holder-c:     UDRU26-FRNIC
admin-c:      UDRU20-FRNIC
tech-c:       UDRU21-FRNIC
zone-c:       NFC1-FRNIC
nsl-id:       NSL56926-FRNIC
registrar:    NAMESHIELD
Expiry Date: 2020-09-18T09:02:23Z
created:      2009-03-05T15:23:51Z
last-update: 2019-09-16T22:10:50Z
source:       FRNIC

ns-list:      NSL56926-FRNIC
nserver:      soleil.uvsq.fr
nserver:      resone.univ-rennes1.fr
source:       FRNIC
```

7)

a)

Vivo

b)

Fibra

c)

Download 340 Mbit/s Upload 168 Mbit/s

d)

10 ms. Representa o tempo de resposta do servidor

e)

Jitter 4ms. É a medida de variaçao de atraso entre os pacotes

f)

Realizei todos os testes no PC via cabo, porem caso fosse via WIFI, dependendo do dositivo em que fosse realizado o teste, ocorreriam variaçoes de sinal por conta da instabilidade do sinal. Causando mediçoes imprecisas e que podem nao estar de acordo com a largura de banda contrada com o provedor

g)