Lab 1

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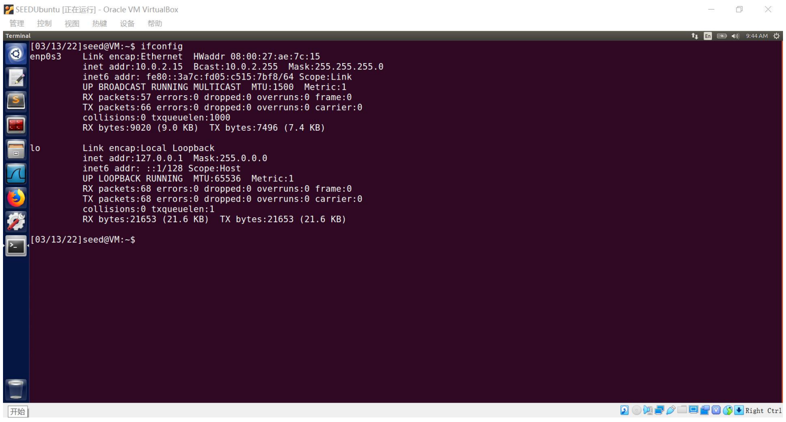
Q1:Start two VMs and List their IP addresses in the space provided below

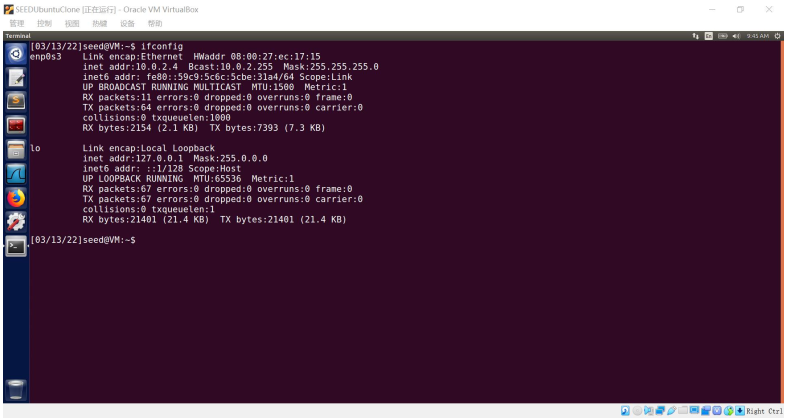
Solution：

VM1: 10.0.2.15


SEEDUbuntu [正在运行] - Oracle VM VirtualBox
管理 控制 视图 热键 设备 帮助
Terminal
9:44 AM
开始
Right Ctrl

```
[03/13/22]seed@VM:~$ ifconfig
enp0s3    Link encap:Ethernet  HWaddr 08:00:27:ae:7c:15
          inet addr:10.0.2.15  Bcast:10.0.2.255  Mask:255.255.255.0
          inet6 addr: fe80::3a7c:fd05:c515:7bf8/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:57 errors:0 dropped:0 overruns:0 frame:0
          TX packets:66 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:9020 (9.0 KB)  TX bytes:7496 (7.4 KB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:68 errors:0 dropped:0 overruns:0 frame:0
          TX packets:68 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1
          RX bytes:21653 (21.6 KB)  TX bytes:21653 (21.6 KB)

[03/13/22]seed@VM:~$
```

VM2: 10.0.2.4


SEEDUbuntuClone [正在运行] - Oracle VM VirtualBox
管理 控制 视图 热键 设备 帮助
Terminal
9:45 AM
Right Ctrl

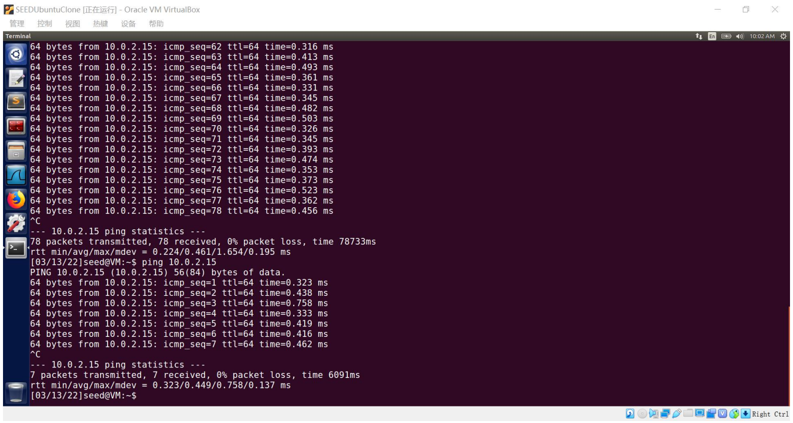
```
[03/13/22]seed@VM:~$ ifconfig
enp0s3    Link encap:Ethernet  HWaddr 08:00:27:ec:17:15
          inet addr:10.0.2.4  Bcast:10.0.2.255  Mask:255.255.255.0
          inet6 addr: fe80::59c9:5c6c:5cbe:31a4/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:11 errors:0 dropped:0 overruns:0 frame:0
          TX packets:64 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:2154 (2.1 KB)  TX bytes:7393 (7.3 KB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:67 errors:0 dropped:0 overruns:0 frame:0
          TX packets:67 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1
          RX bytes:21401 (21.4 KB)  TX bytes:21401 (21.4 KB)

[03/13/22]seed@VM:~$
```

Q2:Use the ping command to verify the network connectivity between two VMs and write down the command(s) you issued in the space provided.

Solution:

In the VM with IP address 10.0.2.14 (Cloned VM), type: ‘ping 10.0.2.15’

The result is as below:


SEEDUbuntuClone [正在运行] - Oracle VM VirtualBox
管理 控制 视图 热键 设备 帮助
Terminal
10:02 AM
Right Ctrl

```
64 bytes from 10.0.2.15: icmp_seq=62 ttl=64 time=0.316 ms
64 bytes from 10.0.2.15: icmp_seq=63 ttl=64 time=0.413 ms
64 bytes from 10.0.2.15: icmp_seq=64 ttl=64 time=0.493 ms
64 bytes from 10.0.2.15: icmp_seq=65 ttl=64 time=0.361 ms
64 bytes from 10.0.2.15: icmp_seq=66 ttl=64 time=0.331 ms
64 bytes from 10.0.2.15: icmp_seq=67 ttl=64 time=0.345 ms
64 bytes from 10.0.2.15: icmp_seq=68 ttl=64 time=0.482 ms
64 bytes from 10.0.2.15: icmp_seq=69 ttl=64 time=0.503 ms
64 bytes from 10.0.2.15: icmp_seq=70 ttl=64 time=0.326 ms
64 bytes from 10.0.2.15: icmp_seq=71 ttl=64 time=0.345 ms
64 bytes from 10.0.2.15: icmp_seq=72 ttl=64 time=0.393 ms
64 bytes from 10.0.2.15: icmp_seq=73 ttl=64 time=0.474 ms
64 bytes from 10.0.2.15: icmp_seq=74 ttl=64 time=0.353 ms
64 bytes from 10.0.2.15: icmp_seq=75 ttl=64 time=0.373 ms
64 bytes from 10.0.2.15: icmp_seq=76 ttl=64 time=0.523 ms
64 bytes from 10.0.2.15: icmp_seq=77 ttl=64 time=0.362 ms
64 bytes from 10.0.2.15: icmp_seq=78 ttl=64 time=0.456 ms
^C
--- 10.0.2.15 ping statistics ---
78 packets transmitted, 78 received, 0% packet loss, time 78733ms
rtt min/avg/max/mdev = 0.224/0.461/1.654/0.195 ms
[03/13/22]seed@VM:~$ ping 10.0.2.15
PING 10.0.2.15 (10.0.2.15) 56(84) bytes of data.
64 bytes from 10.0.2.15: icmp_seq=1 ttl=64 time=0.323 ms
64 bytes from 10.0.2.15: icmp_seq=2 ttl=64 time=0.438 ms
64 bytes from 10.0.2.15: icmp_seq=3 ttl=64 time=0.758 ms
64 bytes from 10.0.2.15: icmp_seq=4 ttl=64 time=0.333 ms
64 bytes from 10.0.2.15: icmp_seq=5 ttl=64 time=0.419 ms
64 bytes from 10.0.2.15: icmp_seq=6 ttl=64 time=0.416 ms
64 bytes from 10.0.2.15: icmp_seq=7 ttl=64 time=0.462 ms
^C
--- 10.0.2.15 ping statistics ---
7 packets transmitted, 7 received, 0% packet loss, time 6091ms
rtt min/avg/max/mdev = 0.323/0.449/0.758/0.137 ms
[03/13/22]seed@VM:~$
```

Q3:Use the telnet command to log onto one VM from another VM and write down the command(s) you issued in the space provided.

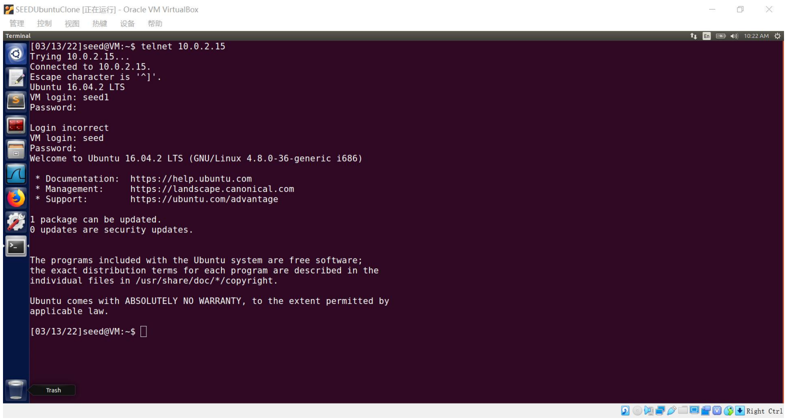
Solution:

In the VM with IP address 10.0.2.14 (Cloned VM), type: ‘telnet 10.0.2.15’

Than, input VM Login: ‘seed’

and Password: ‘dees’

The result is as below:



SEEDUbuntuClone [正在运行] - Oracle VM VirtualBox
管理 控制 视图 热键 设备 帮助
Terminal
Trash
Right Ctrl

```
[03/13/22]seed@VM:~$ telnet 10.0.2.15
Trying 10.0.2.15...
Connected to 10.0.2.15.
Escape character is '^]'.
Ubuntu 16.04.2 LTS
VM login: seed1
Password:

Login incorrect
VM login: seed
Password:
Welcome to Ubuntu 16.04.2 LTS (GNU/Linux 4.8.0-36-generic i686)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

1 package can be updated.
0 updates are security updates.


The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

[03/13/22]seed@VM:~$
```

Q4: The Telnet protocol uses which port?

Answer:

d) 23

Q5: The SSH protocol uses which port?

Answer:

c) 22

Q6: At which layer do Telnet/SSH protocols operate?

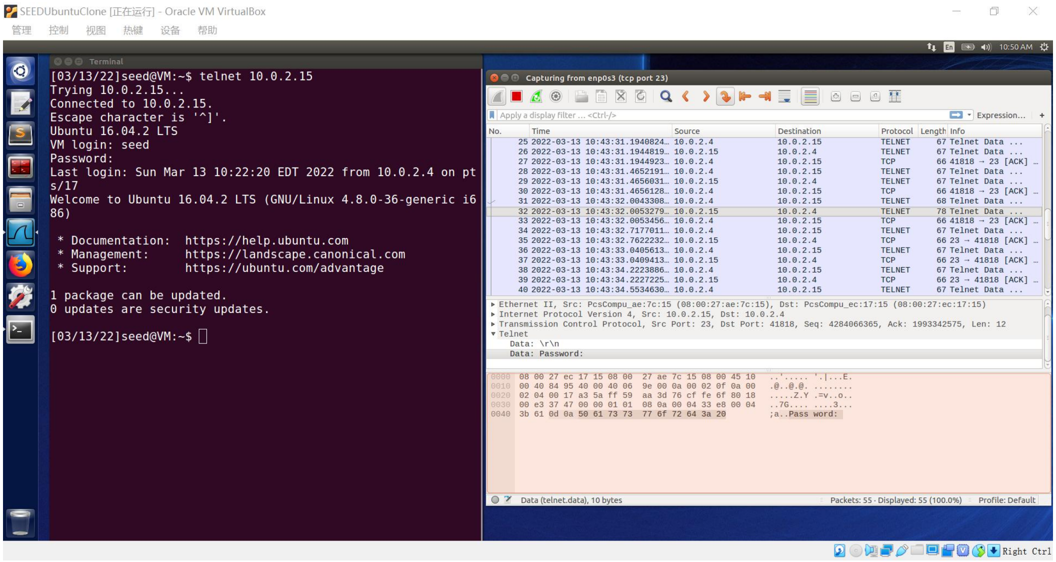
Answer:

a) Application layer

Q7:Can you sniff telnet traffic and discover the username and password?

Answer:

Yes. And I got this with WiresShark:

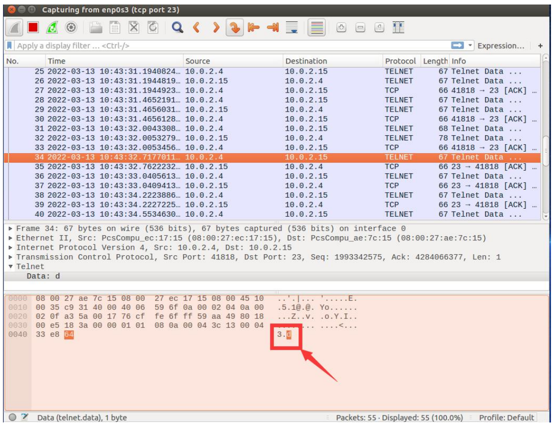


SEEDUbuntuClone [正在运行] - Oracle VM VirtualBox
管理 控制 视图 热键 设备 帮助
10:50 AM
Terminal
Capturing from enp0s3 (tcp port 23)
Apply a display filter ... <Ctrl-/>
Expression...
Right Ctrl

```
[03/13/22]seed@VM:~$ telnet 10.0.2.15
Trying 10.0.2.15...
Connected to 10.0.2.15.
Escape character is '^]'.
Ubuntu 16.04.2 LTS
VM login: seed
Password:
Last login: Sun Mar 13 10:22:20 EDT 2022 from 10.0.2.4 on pt
s/17
Welcome to Ubuntu 16.04.2 LTS (GNU/Linux 4.8.0-36-generic i6
86)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

1 package can be updated.
0 updates are security updates.

[03/13/22]seed@VM:~$
```

```
No.  Time                             Source      Destination  Protocol  Length Info
  25 2022-03-13 10:43:31.1940824…  10.0.2.4    10.0.2.15    TELNET    67 Telnet Data ...
  26 2022-03-13 10:43:31.1944819…  10.0.2.15   10.0.2.4     TELNET    67 Telnet Data ...
  27 2022-03-13 10:43:31.1944923…  10.0.2.4    10.0.2.15    TCP       66 41818 → 23 [ACK] …
  28 2022-03-13 10:43:31.4652191…  10.0.2.4    10.0.2.15    TELNET    67 Telnet Data ...
  29 2022-03-13 10:43:31.4656031…  10.0.2.15   10.0.2.4     TELNET    67 Telnet Data ...
  30 2022-03-13 10:43:31.4656128…  10.0.2.4    10.0.2.15    TCP       66 41818 → 23 [ACK] …
  31 2022-03-13 10:43:32.0043308…  10.0.2.4    10.0.2.15    TELNET    68 Telnet Data ...
  32 2022-03-13 10:43:32.0053279…  10.0.2.15   10.0.2.4     TELNET    78 Telnet Data ...
  33 2022-03-13 10:43:32.0053456…  10.0.2.4    10.0.2.15    TCP       66 41818 → 23 [ACK] …
  34 2022-03-13 10:43:32.7177011…  10.0.2.4    10.0.2.15    TELNET    67 Telnet Data ...
  35 2022-03-13 10:43:32.7622232…  10.0.2.15   10.0.2.4     TCP       66 23 → 41818 [ACK] …
  36 2022-03-13 10:43:33.0405613…  10.0.2.4    10.0.2.15    TELNET    67 Telnet Data ...
  37 2022-03-13 10:43:33.0409413…  10.0.2.15   10.0.2.4     TCP       66 23 → 41818 [ACK] …
  38 2022-03-13 10:43:34.2223886…  10.0.2.4    10.0.2.15    TELNET    67 Telnet Data ...
  39 2022-03-13 10:43:34.2227225…  10.0.2.15   10.0.2.4     TCP       66 23 → 41818 [ACK] …
  40 2022-03-13 10:43:34.5534630…  10.0.2.4    10.0.2.15    TELNET    67 Telnet Data ...

▸ Ethernet II, Src: PcsCompu_ae:7c:15 (08:00:27:ae:7c:15), Dst: PcsCompu_ec:17:15 (08:00:27:ec:17:15)
▸ Internet Protocol Version 4, Src: 10.0.2.15, Dst: 10.0.2.4
▸ Transmission Control Protocol, Src Port: 23, Dst Port: 41818, Seq: 4284066365, Ack: 1993342575, Len: 12
▾ Telnet
    Data: \r\n
    Data: Password:

0000  08 00 27 ec 17 15 08 00  27 ae 7c 15 08 00 45 10   ..'..... '.|...E.
0010  00 40 84 95 40 00 40 06  9e 00 0a 00 02 0f 0a 00   .@..@.@. ........
0020  02 04 00 17 a3 5a ff 59  aa 3d 76 cf fe 6f 80 18   .....Z.Y .=v..o..
0030  00 e3 37 47 00 00 01 01  08 0a 00 04 33 e8 00 04   ..7G.... ....3...
0040  3b 61 0d 0a 50 61 73 73  77 6f 72 64 3a 20         ;a..Pass word: 

Data (telnet.data), 10 bytes          Packets: 55 · Displayed: 55 (100.0%)          Profile: Default
```

For example, the password is shown as below: ‘dees’



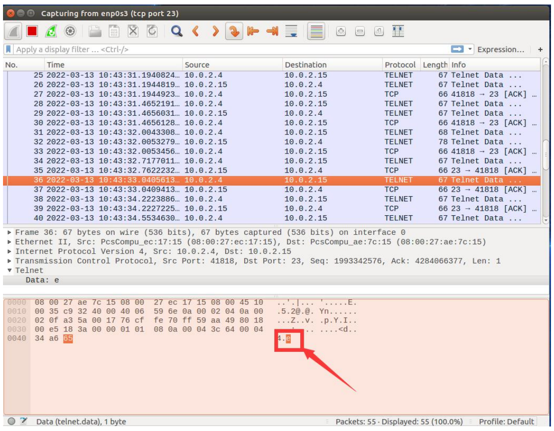
Capturing from enp0s3 (tcp port 23)

Apply a display filter ... <Ctrl-/>

```
No.   Time                          Source       Destination  Protocol  Length Info
   25 2022-03-13 10:43:31.1940824… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   26 2022-03-13 10:43:31.1944819… 10.0.2.15    10.0.2.4     TELNET      67 Telnet Data ...
   27 2022-03-13 10:43:31.1944923… 10.0.2.4     10.0.2.15    TCP         66 41818 → 23 [ACK] …
   28 2022-03-13 10:43:31.4652191… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   29 2022-03-13 10:43:31.4656031… 10.0.2.15    10.0.2.4     TELNET      67 Telnet Data ...
   30 2022-03-13 10:43:31.4656128… 10.0.2.4     10.0.2.15    TCP         66 41818 → 23 [ACK] …
   31 2022-03-13 10:43:32.0043308… 10.0.2.4     10.0.2.15    TELNET      68 Telnet Data ...
   32 2022-03-13 10:43:32.0053279… 10.0.2.15    10.0.2.4     TELNET      78 Telnet Data ...
   33 2022-03-13 10:43:32.0053456… 10.0.2.4     10.0.2.15    TCP         66 41818 → 23 [ACK] …
   34 2022-03-13 10:43:32.7177011… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   35 2022-03-13 10:43:32.7622232… 10.0.2.15    10.0.2.4     TCP         66 23 → 41818 [ACK] …
   36 2022-03-13 10:43:33.0405613… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   37 2022-03-13 10:43:33.0409413… 10.0.2.15    10.0.2.4     TCP         66 23 → 41818 [ACK] …
   38 2022-03-13 10:43:34.2223886… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   39 2022-03-13 10:43:34.2227225… 10.0.2.15    10.0.2.4     TCP         66 23 → 41818 [ACK] …
   40 2022-03-13 10:43:34.5534630… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...

▸ Frame 34: 67 bytes on wire (536 bits), 67 bytes captured (536 bits) on interface 0
▸ Ethernet II, Src: PcsCompu_ec:17:15 (08:00:27:ec:17:15), Dst: PcsCompu_ae:7c:15 (08:00:27:ae:7c:15)
▸ Internet Protocol Version 4, Src: 10.0.2.4, Dst: 10.0.2.15
▸ Transmission Control Protocol, Src Port: 41818, Dst Port: 23, Seq: 1993342575, Ack: 4284066377, Len: 1
▾ Telnet
    Data: d

0000  08 00 27 ae 7c 15 08 00  27 ec 17 15 08 00 45 10   ..'.|... '.....E.
0010  00 35 c9 31 40 00 40 06  59 6f 0a 00 02 04 0a 00   .5.1@.@. Yo......
0020  02 0f a3 5a 00 17 76 cf  fe 6f ff 59 aa 49 80 18   ...Z..v. .o.Y.I..
0030  00 e5 18 3a 00 00 01 01  08 0a 00 04 3c 13 00 04   ...:.... ....<...
0040  33 e8 64                                           3.d
```

Data (telnet.data), 1 byte   Packets: 55 · Displayed: 55 (100.0%)   Profile: Default

d



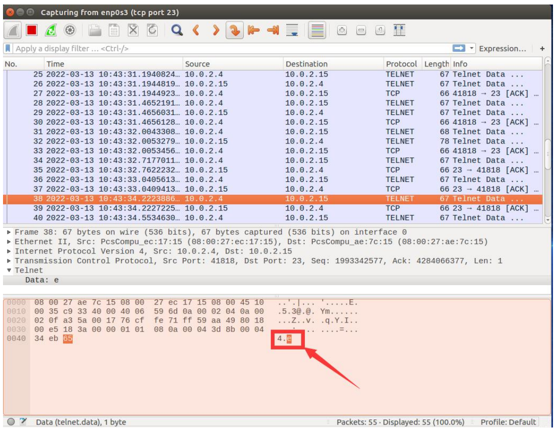
Capturing from enp0s3 (tcp port 23)

Apply a display filter ... <Ctrl-/>

```
No.   Time                          Source       Destination  Protocol  Length Info
   25 2022-03-13 10:43:31.1940824… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   26 2022-03-13 10:43:31.1944819… 10.0.2.15    10.0.2.4     TELNET      67 Telnet Data ...
   27 2022-03-13 10:43:31.1944923… 10.0.2.4     10.0.2.15    TCP         66 41818 → 23 [ACK] …
   28 2022-03-13 10:43:31.4652191… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   29 2022-03-13 10:43:31.4656031… 10.0.2.15    10.0.2.4     TELNET      67 Telnet Data ...
   30 2022-03-13 10:43:31.4656128… 10.0.2.4     10.0.2.15    TCP         66 41818 → 23 [ACK] …
   31 2022-03-13 10:43:32.0043308… 10.0.2.4     10.0.2.15    TELNET      68 Telnet Data ...
   32 2022-03-13 10:43:32.0053279… 10.0.2.15    10.0.2.4     TELNET      78 Telnet Data ...
   33 2022-03-13 10:43:32.0053456… 10.0.2.4     10.0.2.15    TCP         66 41818 → 23 [ACK] …
   34 2022-03-13 10:43:32.7177011… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   35 2022-03-13 10:43:32.7622232… 10.0.2.15    10.0.2.4     TCP         66 23 → 41818 [ACK] …
   36 2022-03-13 10:43:33.0405613… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   37 2022-03-13 10:43:33.0409413… 10.0.2.15    10.0.2.4     TCP         66 23 → 41818 [ACK] …
   38 2022-03-13 10:43:34.2223886… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   39 2022-03-13 10:43:34.2227225… 10.0.2.15    10.0.2.4     TCP         66 23 → 41818 [ACK] …
   40 2022-03-13 10:43:34.5534630… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...

▸ Frame 36: 67 bytes on wire (536 bits), 67 bytes captured (536 bits) on interface 0
▸ Ethernet II, Src: PcsCompu_ec:17:15 (08:00:27:ec:17:15), Dst: PcsCompu_ae:7c:15 (08:00:27:ae:7c:15)
▸ Internet Protocol Version 4, Src: 10.0.2.4, Dst: 10.0.2.15
▸ Transmission Control Protocol, Src Port: 41818, Dst Port: 23, Seq: 1993342576, Ack: 4284066377, Len: 1
▾ Telnet
    Data: e

0000  08 00 27 ae 7c 15 08 00  27 ec 17 15 08 00 45 10   ..'.|... '.....E.
0010  00 35 c9 32 40 00 40 06  59 6e 0a 00 02 04 0a 00   .5.2@.@. Yn......
0020  02 0f a3 5a 00 17 76 cf  fe 70 ff 59 aa 49 80 18   ...Z..v. .p.Y.I..
0030  00 e5 18 3a 00 00 01 01  08 0a 00 04 3c 64 00 04   ...:.... ....<d..
0040  34 a6 65                                           4.e
```

Data (telnet.data), 1 byte   Packets: 55 · Displayed: 55 (100.0%)   Profile: Default

e



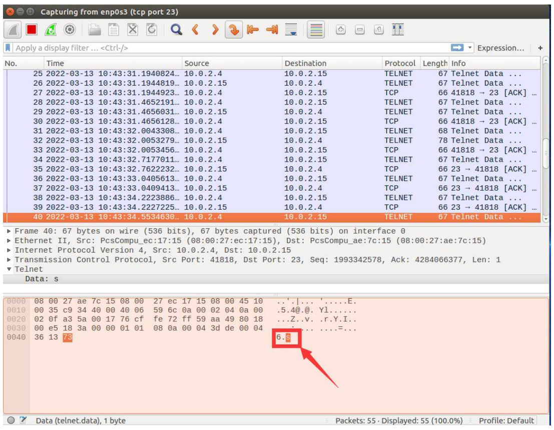
Capturing from enp0s3 (tcp port 23)

Apply a display filter ... <Ctrl-/>

```
No.   Time                          Source       Destination  Protocol  Length Info
   25 2022-03-13 10:43:31.1940824… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   26 2022-03-13 10:43:31.1944819… 10.0.2.15    10.0.2.4     TELNET      67 Telnet Data ...
   27 2022-03-13 10:43:31.1944923… 10.0.2.4     10.0.2.15    TCP         66 41818 → 23 [ACK] …
   28 2022-03-13 10:43:31.4652191… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   29 2022-03-13 10:43:31.4656031… 10.0.2.15    10.0.2.4     TELNET      67 Telnet Data ...
   30 2022-03-13 10:43:31.4656128… 10.0.2.4     10.0.2.15    TCP         66 41818 → 23 [ACK] …
   31 2022-03-13 10:43:32.0043308… 10.0.2.4     10.0.2.15    TELNET      68 Telnet Data ...
   32 2022-03-13 10:43:32.0053279… 10.0.2.15    10.0.2.4     TELNET      78 Telnet Data ...
   33 2022-03-13 10:43:32.0053456… 10.0.2.4     10.0.2.15    TCP         66 41818 → 23 [ACK] …
   34 2022-03-13 10:43:32.7177011… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   35 2022-03-13 10:43:32.7622232… 10.0.2.15    10.0.2.4     TCP         66 23 → 41818 [ACK] …
   36 2022-03-13 10:43:33.0405613… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   37 2022-03-13 10:43:33.0409413… 10.0.2.15    10.0.2.4     TCP         66 23 → 41818 [ACK] …
   38 2022-03-13 10:43:34.2223886… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   39 2022-03-13 10:43:34.2227225… 10.0.2.15    10.0.2.4     TCP         66 23 → 41818 [ACK] …
   40 2022-03-13 10:43:34.5534630… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...

▸ Frame 38: 67 bytes on wire (536 bits), 67 bytes captured (536 bits) on interface 0
▸ Ethernet II, Src: PcsCompu_ec:17:15 (08:00:27:ec:17:15), Dst: PcsCompu_ae:7c:15 (08:00:27:ae:7c:15)
▸ Internet Protocol Version 4, Src: 10.0.2.4, Dst: 10.0.2.15
▸ Transmission Control Protocol, Src Port: 41818, Dst Port: 23, Seq: 1993342577, Ack: 4284066377, Len: 1
▾ Telnet
    Data: e

0000  08 00 27 ae 7c 15 08 00  27 ec 17 15 08 00 45 10   ..'.|... '.....E.
0010  00 35 c9 33 40 00 40 06  59 6d 0a 00 02 04 0a 00   .5.3@.@. Ym......
0020  02 0f a3 5a 00 17 76 cf  fe 71 ff 59 aa 49 80 18   ...Z..v. .q.Y.I..
0030  00 e5 18 3a 00 00 01 01  08 0a 00 04 3d 8b 00 04   ...:.... ....=...
0040  34 eb 65                                           4.e
```

Data (telnet.data), 1 byte   Packets: 55 · Displayed: 55 (100.0%)   Profile: Default

e



Capturing from enp0s3 (tcp port 23)

Apply a display filter ... <Ctrl-/>

```
No.   Time                          Source       Destination  Protocol  Length Info
   25 2022-03-13 10:43:31.1940824… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   26 2022-03-13 10:43:31.1944819… 10.0.2.15    10.0.2.4     TELNET      67 Telnet Data ...
   27 2022-03-13 10:43:31.1944923… 10.0.2.4     10.0.2.15    TCP         66 41818 → 23 [ACK] …
   28 2022-03-13 10:43:31.4652191… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   29 2022-03-13 10:43:31.4656031… 10.0.2.15    10.0.2.4     TELNET      67 Telnet Data ...
   30 2022-03-13 10:43:31.4656128… 10.0.2.4     10.0.2.15    TCP         66 41818 → 23 [ACK] …
   31 2022-03-13 10:43:32.0043308… 10.0.2.4     10.0.2.15    TELNET      68 Telnet Data ...
   32 2022-03-13 10:43:32.0053279… 10.0.2.15    10.0.2.4     TELNET      78 Telnet Data ...
   33 2022-03-13 10:43:32.0053456… 10.0.2.4     10.0.2.15    TCP         66 41818 → 23 [ACK] …
   34 2022-03-13 10:43:32.7177011… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   35 2022-03-13 10:43:32.7622232… 10.0.2.15    10.0.2.4     TCP         66 23 → 41818 [ACK] …
   36 2022-03-13 10:43:33.0405613… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   37 2022-03-13 10:43:33.0409413… 10.0.2.15    10.0.2.4     TCP         66 23 → 41818 [ACK] …
   38 2022-03-13 10:43:34.2223886… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...
   39 2022-03-13 10:43:34.2227225… 10.0.2.15    10.0.2.4     TCP         66 23 → 41818 [ACK] …
   40 2022-03-13 10:43:34.5534630… 10.0.2.4     10.0.2.15    TELNET      67 Telnet Data ...

▸ Frame 40: 67 bytes on wire (536 bits), 67 bytes captured (536 bits) on interface 0
▸ Ethernet II, Src: PcsCompu_ec:17:15 (08:00:27:ec:17:15), Dst: PcsCompu_ae:7c:15 (08:00:27:ae:7c:15)
▸ Internet Protocol Version 4, Src: 10.0.2.4, Dst: 10.0.2.15
▸ Transmission Control Protocol, Src Port: 41818, Dst Port: 23, Seq: 1993342578, Ack: 4284066377, Len: 1
▾ Telnet
    Data: s

0000  08 00 27 ae 7c 15 08 00  27 ec 17 15 08 00 45 10   ..'.|... '.....E.
0010  00 35 c9 34 40 00 40 06  59 6c 0a 00 02 04 0a 00   .5.4@.@. Yl......
0020  02 0f a3 5a 00 17 76 cf  fe 72 ff 59 aa 49 80 18   ...Z..v. .r.Y.I..
0030  00 e5 18 3a 00 00 01 01  08 0a 00 04 3d de 00 04   ...:.... ....=...
0040  36 13 73                                           6.s
```

Data (telnet.data), 1 byte   Packets: 55 · Displayed: 55 (100.0%)   Profile: Default

s

Q8:Use the ssh command to log onto one VM from another VM and write down the command(s) you issued in the space provided

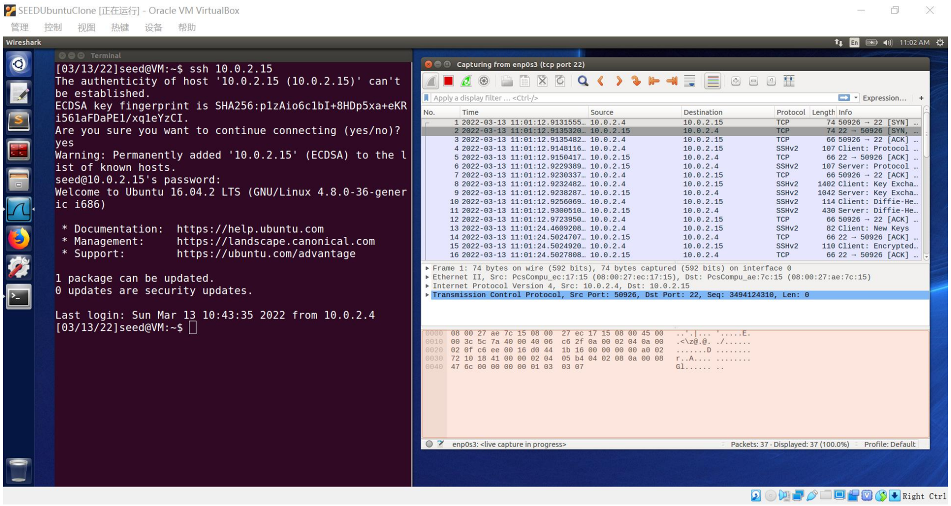
Solution:

In the VM with IP address 10.0.2.14 (Cloned VM), type: 'ssh 10.0.2.15'

Than, choose 'yes'

Input Password: 'dees'

The result is as below:



SEEDUbuntuClone [正在运行] - Oracle VM VirtualBox

```
[03/13/22]seed@VM:~$ ssh 10.0.2.15
The authenticity of host '10.0.2.15 (10.0.2.15)' can't
be established.
ECDSA key fingerprint is SHA256:p1zAio6c1bI+8HDp5xa+eKR
i561aFDaPE1/xq1eYzCI.
Are you sure you want to continue connecting (yes/no)?
yes
Warning: Permanently added '10.0.2.15' (ECDSA) to the l
ist of known hosts.
seed@10.0.2.15's password:
Welcome to Ubuntu 16.04.2 LTS (GNU/Linux 4.8.0-36-gener
ic i686)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

1 package can be updated.
0 updates are security updates.

Last login: Sun Mar 13 10:43:35 2022 from 10.0.2.4
[03/13/22]seed@VM:~$ 
```

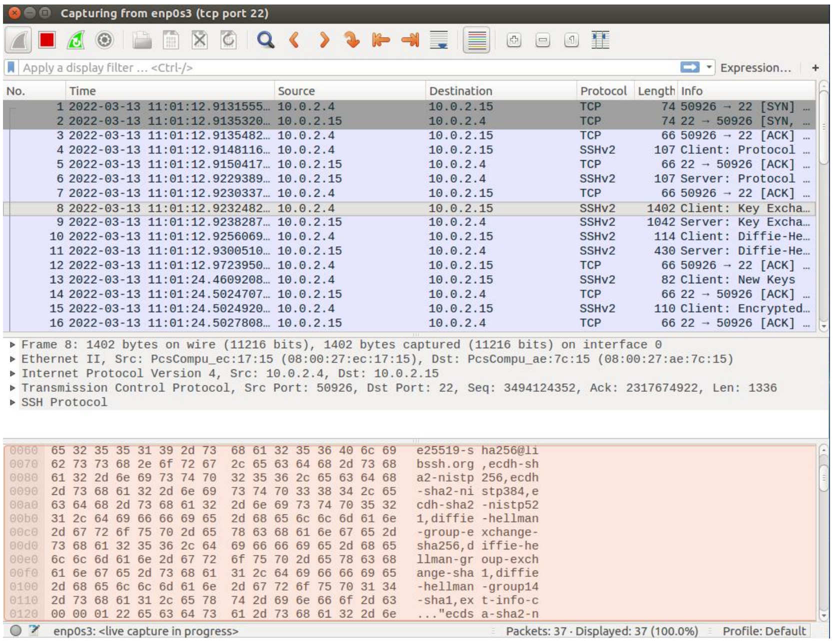
Capturing from enp0s3 (tcp port 22)

```
No.  Time                       Source      Destination  Protocol Length Info
   1 2022-03-13 11:01:12.9131555… 10.0.2.4    10.0.2.15    TCP        74 50926 → 22 [SYN] …
   2 2022-03-13 11:01:12.9135320… 10.0.2.15   10.0.2.4     TCP        74 22 → 50926 [SYN, …
   3 2022-03-13 11:01:12.9135482… 10.0.2.4    10.0.2.15    TCP        66 50926 → 22 [ACK] …
   4 2022-03-13 11:01:12.9148116… 10.0.2.4    10.0.2.15    SSHv2     107 Client: Protocol …
   5 2022-03-13 11:01:12.9150417… 10.0.2.15   10.0.2.4     TCP        66 22 → 50926 [ACK] …
   6 2022-03-13 11:01:12.9229389… 10.0.2.15   10.0.2.4     SSHv2     107 Server: Protocol …
   7 2022-03-13 11:01:12.9230337… 10.0.2.4    10.0.2.15    TCP        66 50926 → 22 [ACK] …
   8 2022-03-13 11:01:12.9232482… 10.0.2.4    10.0.2.15    SSHv2    1402 Client: Key Excha…
   9 2022-03-13 11:01:12.9238287… 10.0.2.15   10.0.2.4     SSHv2    1042 Server: Key Excha…
  10 2022-03-13 11:01:12.9256069… 10.0.2.4    10.0.2.15    SSHv2     114 Client: Diffie-He…
  11 2022-03-13 11:01:12.9300510… 10.0.2.15   10.0.2.4     SSHv2     430 Server: Diffie-He…
  12 2022-03-13 11:01:12.9723950… 10.0.2.4    10.0.2.15    TCP        66 50926 → 22 [ACK] …
  13 2022-03-13 11:01:24.4609208… 10.0.2.4    10.0.2.15    SSHv2      82 Client: New Keys
  14 2022-03-13 11:01:24.5024707… 10.0.2.15   10.0.2.4     TCP        66 22 → 50926 [ACK] …
  15 2022-03-13 11:01:24.5024920… 10.0.2.4    10.0.2.15    SSHv2     110 Client: Encrypted…
  16 2022-03-13 11:01:24.5027808… 10.0.2.15   10.0.2.4     TCP        66 22 → 50926 [ACK] …

▸ Frame 1: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface 0
▸ Ethernet II, Src: PcsCompu_ec:17:15 (08:00:27:ec:17:15), Dst: PcsCompu_ae:7c:15 (08:00:27:ae:7c:15)
▸ Internet Protocol Version 4, Src: 10.0.2.4, Dst: 10.0.2.15
▸ Transmission Control Protocol, Src Port: 50926, Dst Port: 22, Seq: 3494124310, Len: 0

0000  08 00 27 ae 7c 15 08 00  27 ec 17 15 08 00 45 00   ..'.|... '.....E.
0010  00 3c 5c 7a 40 00 40 06  c6 2f 0a 00 02 04 0a 00   .<\z@.@. ./......
0020  02 0f c6 ee 00 16 d0 44  1b 16 00 00 00 00 a0 02   .......D ........
0030  72 10 18 41 00 00 02 04  05 b4 04 02 08 0a 00 08   r..A.... ........
0040  47 6c 00 00 00 00 01 03  03 07                     Gl...... ..

enp0s3: <live capture in progress>    Packets: 37 · Displayed: 37 (100.0%)    Profile: Default
```

Q9:This lab (in part 3) shows how easily a telnet session can be casually viewed by anyone on the network using a network-sniffing application such as Wireshark. In other words, if we use Telnet to gain access to a remote machine, it is not secure. Nowadays, SSH is widely used for remotely accessing another host over the network. Can you sniff SSH traffic and discover the username and password? (Yes/No)

Answer:

No. We can not get it in WiresShark.



Capturing from enp0s3 (tcp port 22)

```
No.  Time                       Source      Destination  Protocol Length Info
   1 2022-03-13 11:01:12.9131555… 10.0.2.4    10.0.2.15    TCP        74 50926 → 22 [SYN] …
   2 2022-03-13 11:01:12.9135320… 10.0.2.15   10.0.2.4     TCP        74 22 → 50926 [SYN, …
   3 2022-03-13 11:01:12.9135482… 10.0.2.4    10.0.2.15    TCP        66 50926 → 22 [ACK] …
   4 2022-03-13 11:01:12.9148116… 10.0.2.4    10.0.2.15    SSHv2     107 Client: Protocol …
   5 2022-03-13 11:01:12.9150417… 10.0.2.15   10.0.2.4     TCP        66 22 → 50926 [ACK] …
   6 2022-03-13 11:01:12.9229389… 10.0.2.15   10.0.2.4     SSHv2     107 Server: Protocol …
   7 2022-03-13 11:01:12.9230337… 10.0.2.4    10.0.2.15    TCP        66 50926 → 22 [ACK] …
   8 2022-03-13 11:01:12.9232482… 10.0.2.4    10.0.2.15    SSHv2    1402 Client: Key Excha…
   9 2022-03-13 11:01:12.9238287… 10.0.2.15   10.0.2.4     SSHv2    1042 Server: Key Excha…
  10 2022-03-13 11:01:12.9256069… 10.0.2.4    10.0.2.15    SSHv2     114 Client: Diffie-He…
  11 2022-03-13 11:01:12.9300510… 10.0.2.15   10.0.2.4     SSHv2     430 Server: Diffie-He…
  12 2022-03-13 11:01:12.9723950… 10.0.2.4    10.0.2.15    TCP        66 50926 → 22 [ACK] …
  13 2022-03-13 11:01:24.4609208… 10.0.2.4    10.0.2.15    SSHv2      82 Client: New Keys
  14 2022-03-13 11:01:24.5024707… 10.0.2.15   10.0.2.4     TCP        66 22 → 50926 [ACK] …
  15 2022-03-13 11:01:24.5024920… 10.0.2.4    10.0.2.15    SSHv2     110 Client: Encrypted…
  16 2022-03-13 11:01:24.5027808… 10.0.2.15   10.0.2.4     TCP        66 22 → 50926 [ACK] …

▸ Frame 8: 1402 bytes on wire (11216 bits), 1402 bytes captured (11216 bits) on interface 0
▸ Ethernet II, Src: PcsCompu_ec:17:15 (08:00:27:ec:17:15), Dst: PcsCompu_ae:7c:15 (08:00:27:ae:7c:15)
▸ Internet Protocol Version 4, Src: 10.0.2.4, Dst: 10.0.2.15
▸ Transmission Control Protocol, Src Port: 50926, Dst Port: 22, Seq: 3494124352, Ack: 2317674922, Len: 1336
▸ SSH Protocol

0060  65 32 35 35 31 39 2d 73  68 61 32 35 36 40 6c 69   e25519-s ha256@li
0070  62 73 73 68 2e 6f 72 67  2c 65 63 64 68 2d 73 68   bssh.org ,ecdh-sh
0080  61 32 2d 6e 69 73 74 70  32 35 36 2c 65 63 64 68   a2-nistp 256,ecdh
0090  2d 73 68 61 32 2d 6e 69  73 74 70 33 38 34 2c 65   -sha2-ni stp384,e
00a0  63 64 68 2d 73 68 61 32  2d 6e 69 73 74 70 35 32   cdh-sha2 -nistp52
00b0  31 2c 64 69 66 66 69 65  2d 68 65 6c 6c 6d 61 6e   1,diffie -hellman
00c0  2d 67 72 6f 75 70 2d 65  78 63 68 61 6e 67 65 2d   -group-e xchange-
00d0  73 68 61 32 35 36 2c 64  69 66 66 69 65 2d 68 65   sha256,d iffie-he
00e0  6c 6c 6d 61 6e 2d 67 72  6f 75 70 2d 65 78 63 68   llman-gr oup-exch
00f0  61 6e 67 65 2d 73 68 61  31 2c 64 69 66 66 69 65   ange-sha 1,diffie
0100  2d 68 65 6c 6c 6d 61 6e  2d 67 72 6f 75 70 31 34   -hellman -group14
0110  2d 73 68 61 31 2c 65 78  74 2d 69 6e 66 6f 2d 63   -sha1,ex t-info-c
0120  00 00 01 22 65 63 64 73  61 2d 73 68 61 32 2d 6e   ..."ecds a-sha2-n

enp0s3: <live capture in progress>    Packets: 37 · Displayed: 37 (100.0%)    Profile: Default
```

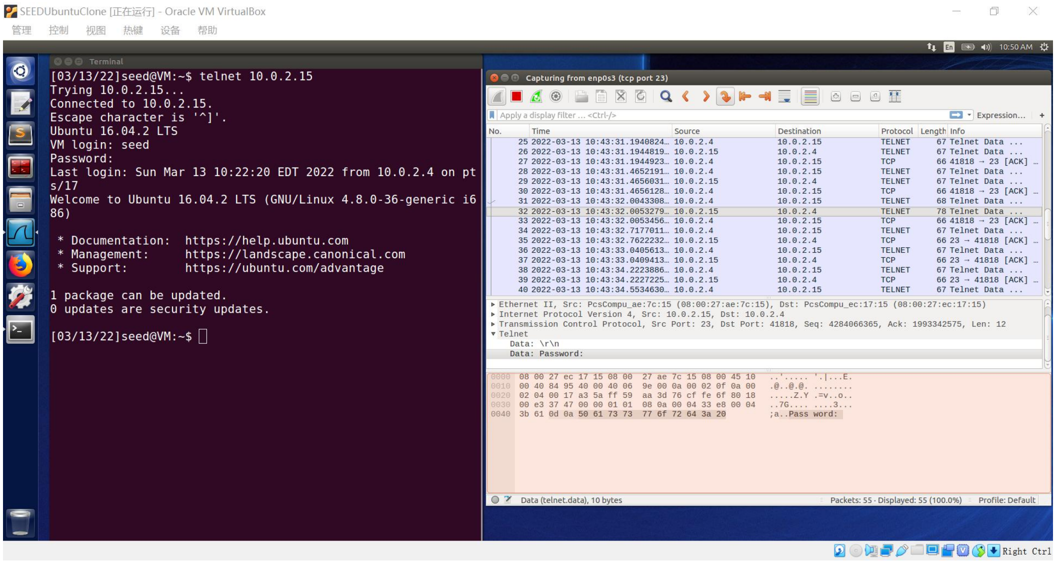
Q10:If you answer “Yes” to any of Q7 and Q9, please find out that the password is included in how many TCP packets (excluding any duplicate or echoed packets). Note that answer the question directly from what you observe in the packet trace you have captured. Screenshots are mandatory in order to demonstrate how you find out the password. Otherwise, you will receive no credit for the question. If you answer “No” to both Q7 and Q8, you simply give the answer “N/A” to the question.

Answer:

For Q7: the password is included in 4 TCP packets. I have showed that in Q7.

For Q9: I have answered no.

I will show the process in Q7 again:

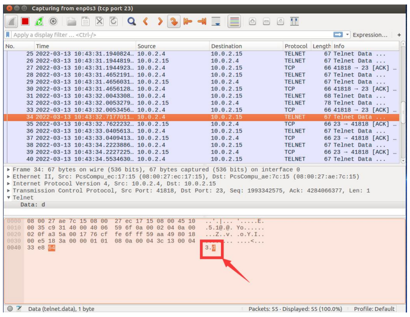


SEEDUbuntuClone [正在运行] - Oracle VM VirtualBox
管理 控制 视图 热键 设备 帮助
10:50 AM
Terminal
Capturing from enp0s3 (tcp port 23)
Apply a display filter ... <Ctrl-/>
Expression...
Right Ctrl

```
[03/13/22]seed@VM:~$ telnet 10.0.2.15
Trying 10.0.2.15...
Connected to 10.0.2.15.
Escape character is '^]'.
Ubuntu 16.04.2 LTS
VM login: seed
Password:
Last login: Sun Mar 13 10:22:20 EDT 2022 from 10.0.2.4 on pt
s/17
Welcome to Ubuntu 16.04.2 LTS (GNU/Linux 4.8.0-36-generic i6
86)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

1 package can be updated.
0 updates are security updates.

[03/13/22]seed@VM:~$
```

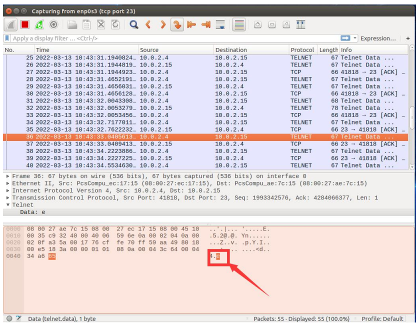
```
No. Time                            Source      Destination  Protocol Length Info
 25 2022-03-13 10:43:31.1940824…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 26 2022-03-13 10:43:31.1944819…    10.0.2.15   10.0.2.4     TELNET   67 Telnet Data ...
 27 2022-03-13 10:43:31.1944923…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 28 2022-03-13 10:43:31.4652191…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 29 2022-03-13 10:43:31.4656031…    10.0.2.15   10.0.2.4     TELNET   67 Telnet Data ...
 30 2022-03-13 10:43:31.4656128…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 31 2022-03-13 10:43:32.0043308…    10.0.2.4    10.0.2.15    TELNET   68 Telnet Data ...
 32 2022-03-13 10:43:32.0053279…    10.0.2.15   10.0.2.4     TELNET   78 Telnet Data ...
 33 2022-03-13 10:43:32.0053456…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 34 2022-03-13 10:43:32.7177011…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 35 2022-03-13 10:43:32.7622232…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 36 2022-03-13 10:43:33.0405613…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 37 2022-03-13 10:43:33.0409413…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 38 2022-03-13 10:43:34.2223886…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 39 2022-03-13 10:43:34.2227225…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 40 2022-03-13 10:43:34.5534630…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...

▸ Ethernet II, Src: PcsCompu_ae:7c:15 (08:00:27:ae:7c:15), Dst: PcsCompu_ec:17:15 (08:00:27:ec:17:15)
▸ Internet Protocol Version 4, Src: 10.0.2.15, Dst: 10.0.2.4
▸ Transmission Control Protocol, Src Port: 23, Dst Port: 41818, Seq: 4284066365, Ack: 1993342575, Len: 12
▾ Telnet
    Data: \r\n
    Data: Password:

0000  08 00 27 ec 17 15 08 00  27 ae 7c 15 08 00 45 10   ..'..... '.|...E.
0010  00 40 84 95 40 00 40 06  9e 00 0a 00 02 0f 0a 00   .@..@.@. ........
0020  02 04 00 17 a3 5a ff 59  aa 3d 76 cf fe 6f 80 18   .....Z.Y .=v..o..
0030  00 e3 37 47 00 00 01 01  08 0a 00 04 33 e8 00 04   ..7G.... ....3...
0040  3b 61 0d 0a 50 61 73 73  77 6f 72 64 3a 20         ;a..Pass word:

Data (telnet.data), 10 bytes        Packets: 55 · Displayed: 55 (100.0%)        Profile: Default
```

The password is shown as below: ‘dees’



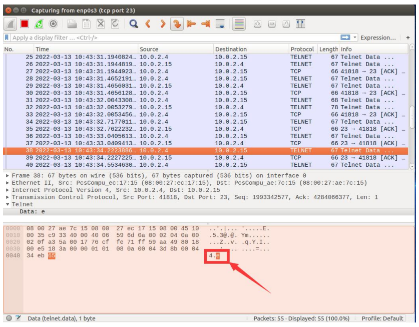
```
No. Time                            Source      Destination  Protocol Length Info
 25 2022-03-13 10:43:31.1940824…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 26 2022-03-13 10:43:31.1944819…    10.0.2.15   10.0.2.4     TELNET   67 Telnet Data ...
 27 2022-03-13 10:43:31.1944923…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 28 2022-03-13 10:43:31.4652191…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 29 2022-03-13 10:43:31.4656031…    10.0.2.15   10.0.2.4     TELNET   67 Telnet Data ...
 30 2022-03-13 10:43:31.4656128…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 31 2022-03-13 10:43:32.0043308…    10.0.2.4    10.0.2.15    TELNET   68 Telnet Data ...
 32 2022-03-13 10:43:32.0053279…    10.0.2.15   10.0.2.4     TELNET   78 Telnet Data ...
 33 2022-03-13 10:43:32.0053456…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 34 2022-03-13 10:43:32.7177011…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 35 2022-03-13 10:43:32.7622232…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 36 2022-03-13 10:43:33.0405613…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 37 2022-03-13 10:43:33.0409413…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 38 2022-03-13 10:43:34.2223886…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 39 2022-03-13 10:43:34.2227225…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 40 2022-03-13 10:43:34.5534630…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...

▸ Frame 34: 67 bytes on wire (536 bits), 67 bytes captured (536 bits) on interface 0
▸ Ethernet II, Src: PcsCompu_ec:17:15 (08:00:27:ec:17:15), Dst: PcsCompu_ae:7c:15 (08:00:27:ae:7c:15)
▸ Internet Protocol Version 4, Src: 10.0.2.4, Dst: 10.0.2.15
▸ Transmission Control Protocol, Src Port: 41818, Dst Port: 23, Seq: 1993342575, Ack: 4284066377, Len: 1
▾ Telnet
    Data: d

0000  08 00 27 ae 7c 15 08 00  27 ec 17 15 08 00 45 10   ..'.|... '.....E.
0010  00 35 c9 31 40 00 40 06  59 6f 0a 00 02 04 0a 00   .5.1@.@. Yo......
0020  02 0f a3 5a 00 17 76 cf  fe 6f ff 59 aa 49 80 18   ...Z..v. .o.Y.I..
0030  00 e5 18 3a 00 00 01 01  08 0a 00 04 3c 13 00 04   ........ ....<...
0040  33 e8 64                                            3.d

Data (telnet.data), 1 byte        Packets: 55 · Displayed: 55 (100.0%)        Profile: Default
```

d



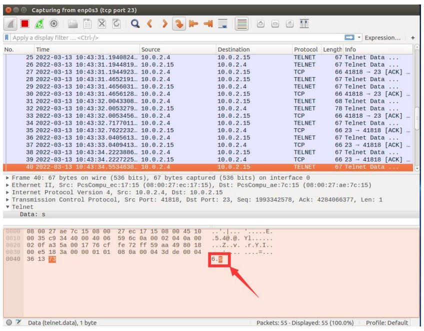
```
No. Time                            Source      Destination  Protocol Length Info
 25 2022-03-13 10:43:31.1940824…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 26 2022-03-13 10:43:31.1944819…    10.0.2.15   10.0.2.4     TELNET   67 Telnet Data ...
 27 2022-03-13 10:43:31.1944923…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 28 2022-03-13 10:43:31.4652191…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 29 2022-03-13 10:43:31.4656031…    10.0.2.15   10.0.2.4     TELNET   67 Telnet Data ...
 30 2022-03-13 10:43:31.4656128…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 31 2022-03-13 10:43:32.0043308…    10.0.2.4    10.0.2.15    TELNET   68 Telnet Data ...
 32 2022-03-13 10:43:32.0053279…    10.0.2.15   10.0.2.4     TELNET   78 Telnet Data ...
 33 2022-03-13 10:43:32.0053456…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 34 2022-03-13 10:43:32.7177011…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 35 2022-03-13 10:43:32.7622232…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 36 2022-03-13 10:43:33.0405613…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 37 2022-03-13 10:43:33.0409413…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 38 2022-03-13 10:43:34.2223886…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 39 2022-03-13 10:43:34.2227225…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 40 2022-03-13 10:43:34.5534630…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...

▸ Frame 36: 67 bytes on wire (536 bits), 67 bytes captured (536 bits) on interface 0
▸ Ethernet II, Src: PcsCompu_ec:17:15 (08:00:27:ec:17:15), Dst: PcsCompu_ae:7c:15 (08:00:27:ae:7c:15)
▸ Internet Protocol Version 4, Src: 10.0.2.4, Dst: 10.0.2.15
▸ Transmission Control Protocol, Src Port: 41818, Dst Port: 23, Seq: 1993342576, Ack: 4284066377, Len: 1
▾ Telnet
    Data: e

0000  08 00 27 ae 7c 15 08 00  27 ec 17 15 08 00 45 10   ..'.|... '.....E.
0010  00 35 c9 32 40 00 40 06  59 6e 0a 00 02 04 0a 00   .5.2@.@. Yn......
0020  02 0f a3 5a 00 17 76 cf  fe 70 ff 59 aa 49 80 18   ...Z..v. .p.Y.I..
0030  00 e5 18 3a 00 00 01 01  08 0a 00 04 3c 64 00 04   ........ ....<d..
0040  34 a6 65                                            4.e

Data (telnet.data), 1 byte        Packets: 55 · Displayed: 55 (100.0%)        Profile: Default
```

e



```
No. Time                            Source      Destination  Protocol Length Info
 25 2022-03-13 10:43:31.1940824…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 26 2022-03-13 10:43:31.1944819…    10.0.2.15   10.0.2.4     TELNET   67 Telnet Data ...
 27 2022-03-13 10:43:31.1944923…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 28 2022-03-13 10:43:31.4652191…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 29 2022-03-13 10:43:31.4656031…    10.0.2.15   10.0.2.4     TELNET   67 Telnet Data ...
 30 2022-03-13 10:43:31.4656128…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 31 2022-03-13 10:43:32.0043308…    10.0.2.4    10.0.2.15    TELNET   68 Telnet Data ...
 32 2022-03-13 10:43:32.0053279…    10.0.2.15   10.0.2.4     TELNET   78 Telnet Data ...
 33 2022-03-13 10:43:32.0053456…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 34 2022-03-13 10:43:32.7177011…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 35 2022-03-13 10:43:32.7622232…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 36 2022-03-13 10:43:33.0405613…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 37 2022-03-13 10:43:33.0409413…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 38 2022-03-13 10:43:34.2223886…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 39 2022-03-13 10:43:34.2227225…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 40 2022-03-13 10:43:34.5534630…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...

▸ Frame 38: 67 bytes on wire (536 bits), 67 bytes captured (536 bits) on interface 0
▸ Ethernet II, Src: PcsCompu_ec:17:15 (08:00:27:ec:17:15), Dst: PcsCompu_ae:7c:15 (08:00:27:ae:7c:15)
▸ Internet Protocol Version 4, Src: 10.0.2.4, Dst: 10.0.2.15
▸ Transmission Control Protocol, Src Port: 41818, Dst Port: 23, Seq: 1993342577, Ack: 4284066377, Len: 1
▾ Telnet
    Data: e

0000  08 00 27 ae 7c 15 08 00  27 ec 17 15 08 00 45 10   ..'.|... '.....E.
0010  00 35 c9 33 40 00 40 06  59 6d 0a 00 02 04 0a 00   .5.3@.@. Ym......
0020  02 0f a3 5a 00 17 76 cf  fe 71 ff 59 aa 49 80 18   ...Z..v. .q.Y.I..
0030  00 e5 18 3a 00 00 01 01  08 0a 00 04 3d 8b 00 04   ........ ....=...
0040  34 eb 65                                            4.e

Data (telnet.data), 1 byte        Packets: 55 · Displayed: 55 (100.0%)        Profile: Default
```

e



```
No. Time                            Source      Destination  Protocol Length Info
 25 2022-03-13 10:43:31.1940824…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 26 2022-03-13 10:43:31.1944819…    10.0.2.15   10.0.2.4     TELNET   67 Telnet Data ...
 27 2022-03-13 10:43:31.1944923…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 28 2022-03-13 10:43:31.4652191…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 29 2022-03-13 10:43:31.4656031…    10.0.2.15   10.0.2.4     TELNET   67 Telnet Data ...
 30 2022-03-13 10:43:31.4656128…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 31 2022-03-13 10:43:32.0043308…    10.0.2.4    10.0.2.15    TELNET   68 Telnet Data ...
 32 2022-03-13 10:43:32.0053279…    10.0.2.15   10.0.2.4     TELNET   78 Telnet Data ...
 33 2022-03-13 10:43:32.0053456…    10.0.2.4    10.0.2.15    TCP      66 41818 → 23 [ACK] …
 34 2022-03-13 10:43:32.7177011…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 35 2022-03-13 10:43:32.7622232…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 36 2022-03-13 10:43:33.0405613…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 37 2022-03-13 10:43:33.0409413…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 38 2022-03-13 10:43:34.2223886…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...
 39 2022-03-13 10:43:34.2227225…    10.0.2.15   10.0.2.4     TCP      66 23 → 41818 [ACK] …
 40 2022-03-13 10:43:34.5534630…    10.0.2.4    10.0.2.15    TELNET   67 Telnet Data ...

▸ Frame 40: 67 bytes on wire (536 bits), 67 bytes captured (536 bits) on interface 0
▸ Ethernet II, Src: PcsCompu_ec:17:15 (08:00:27:ec:17:15), Dst: PcsCompu_ae:7c:15 (08:00:27:ae:7c:15)
▸ Internet Protocol Version 4, Src: 10.0.2.4, Dst: 10.0.2.15
▸ Transmission Control Protocol, Src Port: 41818, Dst Port: 23, Seq: 1993342578, Ack: 4284066377, Len: 1
▾ Telnet
    Data: s

0000  08 00 27 ae 7c 15 08 00  27 ec 17 15 08 00 45 10   ..'.|... '.....E.
0010  00 35 c9 34 40 00 40 06  59 6c 0a 00 02 04 0a 00   .5.4@.@. Yl......
0020  02 0f a3 5a 00 17 76 cf  fe 72 ff 59 aa 49 80 18   ...Z..v. .r.Y.I..
0030  00 e5 18 3a 00 00 01 01  08 0a 00 04 3d de 00 04   ........ ....=...
0040  36 13 73                                            6.s

Data (telnet.data), 1 byte        Packets: 55 · Displayed: 55 (100.0%)        Profile: Default
```

s