**Part-1**

1)

Diagram

Description automatically generated

2)

User-acts as a regular user on a network; like a user that browses the internet.

Attacker- Attacker will be the one attacking on the victim’s machine

Victim- The victim’s machine will be the one who is attacked by attacker

OVS- Open vSwitch, sometimes abbreviated as OVS, It uses virtual network bridges and flow rules to forward packets between hosts.

3)

Network switches send data packets between the devices. Network switch can connect multiple devices and networks to expand the LAN.

**Part-2**

2) SSH refers to the protocol by which network communications can take place safely and remotely via an unsecured network. SSH provides password or public-key based authentication and encrypts connections between two network endpoints.

SSH or Secure Shell is a network communication protocol that enables two computers to communicate.

<https://www.ucl.ac.uk/isd/what-ssh-and-how-do-i-use-it>

Text

Description automatically generated

Text

Description automatically generated

**Part-3**

1)

A screenshot of a computer

Description automatically generated with medium confidence

Text

Description automatically generated

3)

Text

Description automatically generated

4)

A picture containing graphical user interface

Description automatically generated

5)

Text

Description automatically generated

6)yes, it does match the victim’s times and number of pings, for example here 9 pings. It also matches the length e.g., 64. Both the terminal show timings of ping.

7) The time units is (milliseconds).

8) Round trip time (RTT) is the length of time it takes for a signal to be sent plus the length of time it takes for an acknowledgement of that signal to be received.

The higher mdev is, the more variable the RTT is (over time).

<https://serverfault.com/questions/333116/what-does-mdev-mean-in-ping8>

9) Latency is measured as one-way or Round-trip Time (RTT). Over 500ms is the poor quality. When rtt is less than 100ms, than it is good. In our case the RTT is under 1ms which is common. RTT are commonly 10-400 ms, and may exceed 1000 ms.

**Part-4**

1)

Text

Description automatically generated

2)

Text

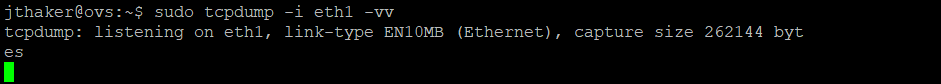
Description automatically generated

6)

Text

Description automatically generated

8)



10)

Text

Description automatically generated

Text

Description automatically generated

A picture containing text, window

Description automatically generated

11)

Yes, it was at a higher speed than at task 3.

**Part-5**

1)

Text

Description automatically generated

2)

Text

Description automatically generated

3)

Text

Description automatically generated

4)

Text

Description automatically generated

**Part-6**

1. capture11.pcapGraphical user interface, application, table, Excel

   Description automatically generated

Graphical user interface, chart

Description automatically generated2)

* The x-axis is the tick interval per second, and y-axis is the packets per tick (per second).
* The line chart shows all packets and red bar graph shows TCP errors.
* It started at 0th second and ended at 35th second with nearabout 50,000 packets.

**Part-7**

Excel-Data

Table

Description automatically generated