

Part 1:

1.

539	1.885105530	35.201.78.240	192.168.0.210	ICP	66 443 → 33012 [ACK] Seq=1029 Ack=1335 Win=62/20 Len=0
540	2.362993891	192.168.0.210	192.168.0.1	DNS	75 Standard query 0x56eb A cu.nsysu.edu.tw
541	2.373473336	192.168.0.210	172.217.160.110	UDP	182 41606 → 443 Len=140

```
[Capturing rule string: tcp]
▼ Ethernet II, Src: ASUSTekC_81:be:88 (34:97:f6:81:be:88), Dst: D-LinkIn_69:ca:10 (c4:12:f5:69:ca:10)
  ▼ Destination: D-LinkIn_69:ca:10 (c4:12:f5:69:ca:10)
    Address: D-LinkIn_69:ca:10 (c4:12:f5:69:ca:10)
    ....0..... = LG bit: Globally unique address (factory default)
    ....0..... = IG bit: Individual address (unicast)
  ▼ Source: ASUSTekC_81:be:88 (34:97:f6:81:be:88)
    Address: ASUSTekC_81:be:88 (34:97:f6:81:be:88)
    ....0..... = LG bit: Globally unique address (factory default)
    ....0..... = IG bit: Individual address (unicast)
  Type: IPv4 (0x0800)
▼ Internet Protocol Version 4, Src: 192.168.0.210, Dst: 192.168.0.1
  0100 .... = Version: 4
  ....0101 = Header Length: 20 bytes (5)
  ▼ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    0000 00.. = Differentiated Services Codepoint: Default (0)
    ....000 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
  Total Length: 61
  Identification: 0xf27f (62079)
  ▼ Flags: 0x4000, Don't fragment
    0... .. = Reserved bit: Not set
    .1. ... = Don't fragment: Set
    ..0. ... = More fragments: Not set
  Fragment offset: 0
  Time to live: 64
  Protocol: UDP (17)
  Header checksum: 0xc60c [validation disabled]
  [Header checksum status: Unverified]
  Source: 192.168.0.210
  Destination: 192.168.0.1
▼ User Datagram Protocol, Src Port: 43316, Dst Port: 53
  Source Port: 43316
  Destination Port: 53
  Length: 41
  Checksum: 0x825e [unverified]
  [Checksum Status: Unverified]
  [Stream index: 4]
  ▼ [Timestamps]
    [Time since first frame: 0.000000000 seconds]
    [Time since previous frame: 0.000000000 seconds]
▼ Domain Name System (query)
  Transaction ID: 0x56eb
  ▶ Flags: 0x0100 Standard query
  Questions: 1
  Answer RRs: 0
  Authority RRs: 0
  Additional RRs: 0
  ▼ Queries
    ▼ cu.nsysu.edu.tw: type A, class IN
      Name: cu.nsysu.edu.tw
      [Name Length: 15]
      [Label Count: 4]
      Type: A (Host Address) (1)
      Class: IN (0x0001)
[Response In: 542]
```

(1)Ethernet

- Destination : D-LinkIn_69:ca:10(c4:12:f5:69:ca:10)
Source : ASUSTekC_81:be:88(34:97:f6:81:be:88)
- content : IPv4 (0x0800)

(2)IP

- Destination : 192.168.0.1
Source : 192.168.0.210
- Header Length : 20 bytes
total Length : 61
- type : 17 -> Protocol : UDP

(3)UDP

- client : 43316 server : 53
- DNS

(4)DNS

- Flags : 0x0100 -> query
- Transaction ID : 0x56eb
- type A , class IN

2.

541	2.373473336	192.168.0.210	172.217.160.110	UDP	182 41606 → 443 Len=140
542	2.373924416	192.168.0.1	192.168.0.210	DNS	91 Standard query response 0x56eb A cu.nsysu.edu.tw A 140.117.11.37
543	2.374586464	192.168.0.210	140.117.11.37	TCP	74 43814 → 443 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 SACK_PERM=1 TSval=38512
▼ Ethernet II, Src: D-LinkIn_69:ca:10 (c4:12:f5:69:ca:10), Dst: ASUSTekC_81:be:88 (34:97:f6:81:be:88)					
▼ Destination: ASUSTekC_81:be:88 (34:97:f6:81:be:88)					
Address: ASUSTekC_81:be:88 (34:97:f6:81:be:88)					
.....0. = L6 bit: Globally unique address (factory default)					
.....0. = I6 bit: Individual address (unicast)					
▼ Source: D-LinkIn_69:ca:10 (c4:12:f5:69:ca:10)					
Address: D-LinkIn_69:ca:10 (c4:12:f5:69:ca:10)					
.....0. = L6 bit: Globally unique address (factory default)					
.....0. = I6 bit: Individual address (unicast)					
Type: IPv4 (0x0800)					
▼ Internet Protocol Version 4, Src: 192.168.0.1, Dst: 192.168.0.210					
0100 = Version: 4					
... 0101 = Header Length: 20 bytes (5)					
▼ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)					
0000 00.. = Differentiated Services Codepoint: Default (0)					
.... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)					
Total Length: 77					
Identification: 0x0000 (0)					
▼ Flags: 0x4000, Don't fragment					
0... .. = Reserved bit: Not set					
.1.. = Don't fragment: Set					
..0. = More fragments: Not set					
Fragment offset: 0					
Time to live: 64					
Protocol: UDP (17)					
Header checksum: 0xb87c [validation disabled]					
[Header checksum status: Unverified]					
Source: 192.168.0.1					
Destination: 192.168.0.210					
▼ User Datagram Protocol, Src Port: 53, Dst Port: 43316					
Source Port: 53					
Destination Port: 43316					
Length: 57					
Checksum: 0x70f7 [unverified]					
[Checksum Status: Unverified]					
[Stream index: 4]					
▼ [Timestamps]					
[Time since first frame: 0.010930525 seconds]					
[Time since previous frame: 0.010930525 seconds]					
▼ Domain Name System (response)					
Transaction ID: 0x56eb					
Flags: 0x0100 Standard query response, No error					
Questions: 1					
Answer RRs: 1					
Authority RRs: 0					
Additional RRs: 0					
▼ Queries					
▼ cu.nsysu.edu.tw: type A, class IN					
Name: cu.nsysu.edu.tw					
[Name Length: 15]					
[Label Count: 4]					
Type: A (Host Address) (1)					
Class: IN (0x0001)					
▼ Answers					
▼ cu.nsysu.edu.tw: type A, class IN, addr 140.117.11.37					
Name: cu.nsysu.edu.tw					
Type: A (Host Address) (1)					
Class: IN (0x0001)					
Time to live: 184 (3 minutes, 4 seconds)					
Data length: 4					
Address: 140.117.11.37					
[Request In: 540]					
[Time: 0.010930525 seconds]					

(1)Ethernet

- Destination : ASUSTekC_81:be:88(34:97:f6:81:be:88)
Source : D-LinkIn_69:ca:10(c4:12:f5:69:ca:10)
- content : IPv4 (0x0800)

(2)IP

- Destination : 192.168.0.210
Source : 192.168.0.1
- Header Length : 20 bytes
total Length : 77 bytes
Yes
- Only 1 Answer Time to live : 184

3.

543	2.374586464	192.168.0.210	140.117.11.37	TCP	74	43814 → 443 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 SACK_PERM=1 TSval=3851283992 TSecr=0 WS=128
544	2.375409480	140.117.11.37	192.168.0.210	TCP	74	443 → 43814 [SYN, ACK] Seq=0 Ack=1 Win=43440 Len=0 MSS=1460 SACK_PERM=1 TSval=3863899808 TSecr=3851283992 WS=2048
545	2.375471678	192.168.0.210	140.117.11.37	TCP	66	43814 → 443 [ACK] Seq=1 Ack=1 Win=64256 Len=0 TSval=3851283993 TSecr=3863899808
546	2.375922374	192.168.0.210	140.117.11.37	TLSh1.2	587	Client Hello

```

Destination: 140.117.11.37
▼ Transmission Control Protocol, Src Port: 43814, Dst Port: 443, Seq: 0, Len: 0
  Source Port: 43814
  Destination Port: 443
  [Stream index: 25]
  [TCP Segment Len: 0]
  Sequence number: 0 (relative sequence number)
  Sequence number (raw): 914528027
  [Next sequence number: 1 (relative sequence number)]
  Acknowledgment number: 0
  Acknowledgment number (raw): 0
  1010 .... = Header Length: 40 bytes (10)
  ▼ Flags: 0x002 (SYN)
    000. .... = Reserved: Not set
    ...0 .... = Nonce: Not set
    ...0 .... = Congestion Window Reduced (CWR): Not set
    ....0. .... = ECN-Echo: Not set
    ....0. .... = Urgent: Not set
    ....0. .... = Acknowledgment: Not set
    ....0. .... = Push: Not set
    ....0. .... = Reset: Not set
    ....1. .... = Syn: Set
  ▼ [Expert Info (Chat/Sequence): Connection establish request (SYN): server port 443]
    [Connection establish request (SYN): server port 443]
    [Severity level: Chat]
    [Group: Sequence]
    ....0. .... = Fin: Not set
    [TCP Flags: .....S.]
  Window size value: 64240
  [Calculated window size: 64240]
  Checksum: 0x5943 [unverified]
  [Checksum Status: Unverified]
  Urgent pointer: 0
  ▼ Options: (20 bytes), Maximum segment size, SACK permitted, Timestamps, No-Operation (NOP), Window scale
    ▼ TCP Option - Maximum segment size: 1460 bytes
      Kind: Maximum Segment Size (2)
      Length: 4
      MSS Value: 1460
    ▶ TCP Option - SACK permitted
    ▶ TCP Option - Timestamps: TSval 3851283992, TSecr 0
    ▶ TCP Option - No-Operation (NOP)
    ▶ TCP Option - Window scale: 7 (multiply by 128)

```

- a. client : 43814 server : 443
- b. 0
- c. 914528027(raw)
- d. 64240
- e. 1460 bytes
- f. 0x002

Part 2

1.

86	2.791207852	35.201.78.240	192.168.0.210	TCP	60 443 → 60899 [ACK] Seq=8409 ACK=171 Win=245 Len=0 TSval=2474/66451 TSeq=
87	2.887230762	192.168.0.210	8.8.8.8	ICMP	98 Echo (ping) request id=0xd5d, seq=1/256, ttl=64 (reply in 88)
88	3.297613736	192.168.0.210	140.117.11.37	TCP	74 43924 → 443 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 SACK PERM=1 TSval=38

▼ Ethernet II, Src: ASUSTekC_81:be:88 (34:97:f6:81:be:88), Dst: D-LinkIn_69:ca:10 (c4:12:f5:69:ca:10)
▼ Destination: D-LinkIn_69:ca:10 (c4:12:f5:69:ca:10)
Address: D-LinkIn_69:ca:10 (c4:12:f5:69:ca:10)
.....0. = LG bit: Globally unique address (factory default)
.....0. = IG bit: Individual address (unicast)
▼ Source: ASUSTekC_81:be:88 (34:97:f6:81:be:88)
Address: ASUSTekC_81:be:88 (34:97:f6:81:be:88)
.....0. = LG bit: Globally unique address (factory default)
.....0. = IG bit: Individual address (unicast)
Type: IPv4 (0x0800)
▼ Internet Protocol Version 4, Src: 192.168.0.210, Dst: 8.8.8.8
0100 = Version: 4
....0101 = Header Length: 20 bytes (5)
▼ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
0000 00.. = Differentiated Services Codepoint: Default (0)
.....00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
Total Length: 84
Identification: 0xd52a (54570)
▼ Flags: 0x4000, Don't fragment
0... .. = Reserved bit: Not set
1. = Don't fragment: Set
..0. = More fragments: Not set
Fragment offset: 0
Time to live: 64
Protocol: ICMP (1)
Header checksum: 0x93f4 [validation disabled]
[Header checksum status: Unverified]
Source: 192.168.0.210
Destination: 8.8.8.8
▼ Internet Control Message Protocol
Type: 8 (Echo (ping) request)
Code: 0
Checksum: 0x9c16 [correct]
[Checksum Status: Good]
Identifier (BE): 7517 (0xd5d)
Identifier (LE): 23837 (0x5d1d)
Sequence number (BE): 1 (0x0001)
Sequence number (LE): 256 (0x0100)
[Response frame: 88]
Timestamp from icmp data: Sep 20, 2020 17:46:31.000000000 CST
[Timestamp from icmp data (relative): 0.341071196 seconds]
▼ Data (48 bytes)
Data: 1c3405000000000101112131415161718191a1b1c1d1e1f...
[Length: 48]

(1)ICMP request

- 64
- 8 (Echo (ping) request)
- Message Identifier : 7517(Big endian)
Sequence Number : 1(Big endian)

88	2.894492277	8.8.8.8	192.168.0.210	ICMP	98 Echo (ping) reply id=0xd5d, seq=1/256, ttl=118 (request in 87)
89	3.297613736	192.168.0.210	140.117.11.37	TCP	74 43924 → 443 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 SACK PERM=1 TSval=38

[Header checksum status: Unverified]
Source: 8.8.8.8
Destination: 192.168.0.210
▼ Internet Control Message Protocol
Type: 0 (Echo (ping) reply)
Code: 0
Checksum: 0xa416 [correct]
[Checksum Status: Good]
Identifier (BE): 7517 (0xd5d)
Identifier (LE): 23837 (0x5d1d)
Sequence number (BE): 1 (0x0001)
Sequence number (LE): 256 (0x0100)
[Request frame: 87]
[Response time: 7.262 ms]
Timestamp from icmp data: Sep 20, 2020 17:46:31.000000000 CST
[Timestamp from icmp data (relative): 0.348332711 seconds]
▼ Data (48 bytes)
Data: 1c3405000000000101112131415161718191a1b1c1d1e1f...

(2)ICMP reply

- 0 (Echo (ping) reply)

2.

185	6.764028321	192.168.0.210	8.8.8.8	ICMP	74	Echo (ping) request	id=0x2189, seq=1/256, ttl=1 (no response found!)
186	6.764045798	192.168.0.210	8.8.8.8	ICMP	74	Echo (ping) request	id=0x2189, seq=2/512, ttl=2 (no response found!)
187	6.764053957	192.168.0.210	8.8.8.8	ICMP	74	Echo (ping) request	id=0x2189, seq=3/768, ttl=3 (no response found!)
188	6.764062414	192.168.0.210	8.8.8.8	ICMP	74	Echo (ping) request	id=0x2189, seq=4/1024, ttl=4 (no response found!)
189	6.764070200	192.168.0.210	8.8.8.8	ICMP	74	Echo (ping) request	id=0x2189, seq=5/1280, ttl=5 (no response found!)
190	6.764077870	192.168.0.210	8.8.8.8	ICMP	74	Echo (ping) request	id=0x2189, seq=6/1536, ttl=6 (no response found!)

```

type: IPv4 (0x0000)
Internet Protocol Version 4, Src: 192.168.0.210, Dst: 8.8.8.8
  0100 .... = Version: 4
  .... 0101 = Header Length: 20 bytes (5)
  Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    0000 00.. = Differentiated Services Codepoint: Default (0)
    .... 000 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
  Total Length: 60
  Identification: 0x8a7a (35450)
  Flags: 0x0000
    0... .. = Reserved bit: Not set
    .0. .... = Don't fragment: Not set
    ..0. .... = More fragments: Not set
  Fragment offset: 0
  Time to live: 1
    [Expert Info (Note/Sequence): "Time To Live" only 1]
      ["Time To Live" only 1]
      [Severity level: Note]
      [Group: Sequence]
  Protocol: ICMP (1)
  Header checksum: 0x5dbd [validation disabled]
  [Header checksum status: Unverified]
  Source: 192.168.0.210
  Destination: 8.8.8.8
Internet Control Message Protocol
  Type: 8 (Echo (ping) request)
  Code: 0
  Checksum: 0x60f0 [correct]
  [Checksum Status: Good]
  Identifier (BE): 8585 (0x2189)
  Identifier (LE): 35105 (0x8921)
  Sequence number (BE): 1 (0x0001)
  Sequence number (LE): 256 (0x0100)
  [No response seen]
    [Expert Info (Warning/Sequence): No response seen to ICMP request]
      [No response seen to ICMP request]
      [Severity level: Warning]
      [Group: Sequence]
  Data (32 bytes)
    Data: 48494a4b4c4d4e4f505152535455565758595a5b5c5d5e5f...
    [Length: 32]

```

(1)ICMP request

- Destination : 8.8.8.8
Source : 192.168.0.210
- type : ICMP
time-to-live : 1
- type : 8 (Echo (ping) request)
Message Identifier : 8585(Big endian)
Sequence Number : 1(Big endian)

200	6.764158742	192.168.0.210	8.8.8.8	ICMP	74	Echo (ping) request	id=0x2189, seq=16/4096, ttl=16 (reply in 2:)
201	6.764661347	140.117.232.85	192.168.0.210	ICMP	70	Time-to-live exceeded (Time to live exceeded in transit)	
202	6.764720641	140.117.232.33	192.168.0.210	ICMP	70	Time-to-live exceeded (Time to live exceeded in transit)	
203	6.764776980	192.168.0.210	8.8.8.8	ICMP	74	Echo (ping) request	id=0x2189, seq=17/4352, ttl=17 (reply in 2:)

```

Internet Protocol Version 4, Src: 140.117.232.85, Dst: 192.168.0.210
  0100 .... = Version: 4
  .... 0101 = Header Length: 20 bytes (5)
  Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    0000 00.. = Differentiated Services Codepoint: Default (0)
    .... 000 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
  Total Length: 56
  Identification: 0x0000 (0)
  Flags: 0x0000
    0... .. = Reserved bit: Not set
    .0. .... = Don't fragment: Not set
    ..0. .... = More fragments: Not set
  Fragment offset: 0
  Time to live: 253
  Protocol: ICMP (1)
  Header checksum: 0x877f [validation disabled]
  [Header checksum status: Unverified]
  Source: 140.117.232.85
  Destination: 192.168.0.210
Internet Control Message Protocol
  Type: 11 (Time-to-live exceeded)
  Code: 0 (Time to live exceeded in transit)
  Checksum: 0x6a85 [correct]
  [Checksum Status: Good]
  Unused: 00000000
Internet Protocol Version 4, Src: 192.168.0.210, Dst: 8.8.8.8
  0100 .... = Version: 4
  .... 0101 = Header Length: 20 bytes (5)
  Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    0000 00.. = Differentiated Services Codepoint: Default (0)
    .... 000 = Explicit Congestion Notification: Not ECN-Capable Transport (0)

```

(2)Time-to-live exceed

- Destination : 192.168.0.210
Source : 140.117.232.85
- type : 11(Time-to-live exceeded)

Part3

1. 874 Mbits/sec

```
maxhsu@Max-Hsu-Lab:~/Desktop/Desktop/Homework/G3-1/ML/HW1$ iperf3 -c 140.117.171.208 -t 10 -i 2
Connecting to host 140.117.171.208, port 5201
[ 4] local 192.168.0.210 port 59954 connected to 140.117.171.208 port 5201
[ ID] Interval           Transfer     Bandwidth       Retr   Cwnd
[ 4]  0.00-2.00      sec    226 MBytes    949 Mbits/sec        6   445 KBytes
[ 4]  2.00-4.00      sec    207 MBytes    866 Mbits/sec       26   300 KBytes
[ 4]  4.00-6.00      sec    199 MBytes    833 Mbits/sec       17   338 KBytes
[ 4]  6.00-8.00      sec    198 MBytes    832 Mbits/sec       10   376 KBytes
[ 4]  8.00-10.00     sec    212 MBytes    890 Mbits/sec       15   249 KBytes
-----
[ ID] Interval           Transfer     Bandwidth       Retr
[ 4]  0.00-10.00     sec   1.02 GBytes    874 Mbits/sec       74
[ 4]  0.00-10.00     sec   1.01 GBytes    871 Mbits/sec
sender
receiver
iperf Done.
```

2. window size = 2000

```
maxhsu@Max-Hsu-Lab:~/Desktop/Desktop/Homework/G3-1/ML/HW1$ iperf3 -c 140.117.171.208 -w 2000 -t 10 -i 2
Connecting to host 140.117.171.208, port 5201
[ 4] local 192.168.0.210 port 59976 connected to 140.117.171.208 port 5201
[ ID] Interval           Transfer     Bandwidth       Retr   Cwnd
[ 4]  0.00-2.00      sec    12.4 MBytes    52.1 Mbits/sec        0    7.07 KBytes
[ 4]  2.00-4.00      sec    12.8 MBytes    53.5 Mbits/sec        0    7.07 KBytes
[ 4]  4.00-6.00      sec    12.5 MBytes    52.3 Mbits/sec        0    7.07 KBytes
[ 4]  6.00-8.00      sec    12.6 MBytes    52.7 Mbits/sec        0    7.07 KBytes
[ 4]  8.00-10.00     sec    12.5 MBytes    52.5 Mbits/sec        0    7.07 KBytes
-----
[ ID] Interval           Transfer     Bandwidth       Retr
[ 4]  0.00-10.00     sec     62.7 MBytes    52.6 Mbits/sec        0
[ 4]  0.00-10.00     sec     62.7 MBytes    52.6 Mbits/sec
sender
receiver
iperf Done.
```

window size = 10000

```
maxhsu@Max-Hsu-Lab:~/Desktop/Desktop/Homework/G3-1/ML/HW1$ iperf3 -c 140.117.171.208 -w 10000 -t 10 -i 2
Connecting to host 140.117.171.208, port 5201
[ 4] local 192.168.0.210 port 60034 connected to 140.117.171.208 port 5201
[ ID] Interval           Transfer     Bandwidth       Retr   Cwnd
[ 4]  0.00-2.00      sec    48.0 MBytes    201 Mbits/sec        0   18.4 KBytes
[ 4]  2.00-4.00      sec    48.1 MBytes    202 Mbits/sec        0   18.4 KBytes
[ 4]  4.00-6.00      sec    47.9 MBytes    201 Mbits/sec        0   18.4 KBytes
[ 4]  6.00-8.00      sec    48.2 MBytes    202 Mbits/sec        0   18.4 KBytes
[ 4]  8.00-10.00     sec    48.3 MBytes    203 Mbits/sec        0   18.4 KBytes
-----
[ ID] Interval           Transfer     Bandwidth       Retr
[ 4]  0.00-10.00     sec     240 MBytes    202 Mbits/sec        0
[ 4]  0.00-10.00     sec     240 MBytes    202 Mbits/sec
sender
receiver
iperf Done.
```

Result : Bandwidth increase with Window size

3. 1.05 Mbits/sec

```
maxhsu@Max-Hsu-Lab:~/Desktop/Desktop/Homework/G3-1/ML/HW1$ iperf3 -c 140.117.171.208 -u -t 10 -i 2
Connecting to host 140.117.171.208, port 5201
[ 4] local 192.168.0.210 port 60751 connected to 140.117.171.208 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[ 4]  0.00-2.00      sec    256 KBytes    1.05 Mbits/sec    32
[ 4]  2.00-4.00      sec    256 KBytes    1.05 Mbits/sec    32
[ 4]  4.00-6.00      sec    256 KBytes    1.05 Mbits/sec    32
[ 4]  6.00-8.00      sec    256 KBytes    1.05 Mbits/sec    32
[ 4]  8.00-10.00     sec    256 KBytes    1.05 Mbits/sec    32
- - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter          Lost/Total Datagrams
[ 4]  0.00-10.00     sec    1.25 MBytes    1.05 Mbits/sec    0.781 ms        0/159 (0%)
[ 4] Sent 159 datagrams

iperf Done.
```

4. bandwidth = 512G

```
maxhsu@Max-Hsu-Lab:~/Desktop/Desktop/Homework/G3-1/ML/HW1$ iperf3 -c 140.117.171.208 -u -t 10 -i 2 -b 512G
Connecting to host 140.117.171.208, port 5201
[ 4] local 192.168.0.210 port 60782 connected to 140.117.171.208 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[ 4]  0.00-2.00      sec    228 MBytes    958 Mbits/sec    29239
[ 4]  2.00-4.00      sec    229 MBytes    958 Mbits/sec    29249
[ 4]  4.00-6.00      sec    228 MBytes    958 Mbits/sec    29246
[ 4]  6.00-8.00      sec    228 MBytes    958 Mbits/sec    29246
[ 4]  8.00-10.00     sec    228 MBytes    958 Mbits/sec    29222
- - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter          Lost/Total Datagrams
[ 4]  0.00-10.00     sec    1.12 GBytes    958 Mbits/sec    0.153 ms        111744/146201 (76%)
[ 4] Sent 146201 datagrams

iperf Done.
```

bandwidth = 10M

```
maxhsu@Max-Hsu-Lab:~/Desktop/Desktop/Homework/G3-1/ML/HW1$ iperf3 -c 140.117.171.208 -u -t 10 -i 2 -b 10M
Connecting to host 140.117.171.208, port 5201
[ 4] local 192.168.0.210 port 47865 connected to 140.117.171.208 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[ 4]  0.00-2.00      sec    2.28 MBytes    9.57 Mbits/sec    292
[ 4]  2.00-4.00      sec    2.38 MBytes    9.99 Mbits/sec    305
[ 4]  4.00-6.00      sec    2.38 MBytes    9.99 Mbits/sec    305
[ 4]  6.00-8.00      sec    2.38 MBytes    9.99 Mbits/sec    305
[ 4]  8.00-10.00     sec    2.38 MBytes    9.99 Mbits/sec    305
- - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter          Lost/Total Datagrams
[ 4]  0.00-10.00     sec    11.8 MBytes    9.91 Mbits/sec    0.170 ms        0/1511 (0%)
[ 4] Sent 1511 datagrams

iperf Done.
```

Result : error packet decrease with bandwidth