# UDP Packets - Baseline Analysis Exercise

**Q-1:** How many Total UDP packets for Window server?

**Answer:**

Total UDP Packets =6

Total DNS Packets =40

**Q-2:** How many Total UDP packets for Linux server?

**Answer:**

Total UDP Packets =6

Total DNS Packets =more than 100

**Q-3:** Does the counting of total UDP packets differ for Windows and Linux server? If NO, explain why?

**Answer:There is no difference in the number of packets between Linux and Windows. Compared with TCP, UDP does not require three handshake packets**

**Q-4:** Did you find any DNS packets for Linux or Windows server? If YES, explain why?

**Answer:yes. Use ISATAP Protocol to provide an automatic tunneling mechanism within a private IPv4 site**

**Q-5:** What are the Minimum, Maximum and Common/Average Size (Length) of UDP packets for Windows server?

**Answer:**

Minimum Size of UDP Packets= 48Bytes

Maximum Size of UDP Packets = 60Bytes

Common Size of UDP Packets = 55Bytes

**Q-6:** What are the Minimum, Maximum and Common/Average Size (Length) of UDP packets for Linux server?

**Answer:**

Minimum Size of UDP Packets= 46Bytes

Maximum Size of UDP Packets = 50Bytes

Common Size of UDP Packets = 48Bytes

**Q-7:** Write the size of Data (in bytes) for all your client and server messages in the Windows server based experiment. Why these message packets are not continuous packets (unlike your continuous messages).

**Answer:**

1. Size of “Client says HELLO” Message =18
2. Size of “Server says HELLO” Message =18
3. Size of “Client UDP Packets” Message =19
4. Size of “Server UDP Packets” Message =19
5. Size of “Client says Finished” Message =21
6. Size of “Server says Finished” Message =21

Reason:It also need to use SSDP protocol for multicast

**Q-8:** Write the size of Data (in bytes) for all your client and server messages in the Linux server based experiment. Why these message packets are not continuous packets (unlike your continuous messages).

**Answer:**

1. Size of “Client says HELLO” Message =18
2. Size of “Server says HELLO” Message =18
3. Size of “Client UDP Packets” Message =19
4. Size of “Server UDP Packets” Message =19
5. Size of “Client says Finished” Message =21
6. Size of “Server says Finished” Message =21

Reason: It also need ARP protocol and NTP protocol.

**Q-9:** Did you find any retransmitted and/or duplicated packets? If NO, explain briefly your analysis about it.

**Answer:not find.The udp itself has no retransmission mechanism**

**Q-10:** Explain briefly about the source and destination port number for all your client and server message packets and analyse your result in the Windows server based experiment.

**Answer:**

1. Source and Destination Port Numbers of “Client says HELLO” Message =

Source Port: 54401 Destination Port: 1337

1. Source and Destination Port Numbers of “Server says HELLO” Message =

Source Port: 1337 Destination Port: 54401

1. Source and Destination Port Numbers of “Client UDP Packets” Message =

Source Port: 54401 Destination Port: 1337

1. Source and Destination Port Numbers of “Server UDP Packets” Message =

Source Port: 1337 Destination Port: 54401

1. Source and Destination Port Numbers of “Client says Finished” Message =

Source Port: 54401 Destination Port: 1337

1. Source and Destination Port Numbers of “Server says Finished” Message =

Source Port: 1337 Destination Port: 54401

Analysis:

The port specified on the server is 1337. Port 54401 is randomly assigned by the client system. Our communication between the two virtual machines is actually the communication between port 1337 in the server and port 54401 in the client.

**Q-11:** Explain briefly about the source and destination port number for all your client and server message packets and analyse your result in the Linux server based experiment.

**Answer:**

1. Source and Destination Port Numbers of “Client says HELLO” Message =

Source Port: 36339 Destination Port: 1337

1. Source and Destination Port Numbers of “Server says HELLO” Message =

Source Port: 1337 Destination Port:36339

1. Source and Destination Port Numbers of “Client UDP Packets” Message =

Source Port: 36339 Destination Port: 1337

1. Source and Destination Port Numbers of “Server UDP Packets” Message =

Source Port: 1337 Destination Port: 36339

1. Source and Destination Port Numbers of “Client says Finished” Message =

Source Port: 36339 Destination Port: 1337

1. Source and Destination Port Numbers of “Server says Finished” Message =

Source Port: 1337 Destination Port:36339

Analysis:

The port specified on the server is 1337. Port 36339 is randomly assigned by the client system. Our communication between the two virtual machines is actually the communication between port 1337 in the server and port 36339 in the client.