

# Wireshark

The image shows two screenshots of the Wireshark network protocol analyzer interface. Both screenshots are taken from a Windows desktop environment, as evidenced by the taskbar at the bottom showing various application icons and system tray information (30°C, Mostly cloudy, 05:52 PM, 04-08-2025).

**Top Screenshot: Transmission Control Protocol: Protocol**

The top screenshot shows a packet capture of a TCP connection. The filter is set to `tcp`. The packet list shows 16 packets. The packet details pane shows the selected packet (No. 16) with the following information:

- Frame 16: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface \Device\NPF...
- Ethernet II, Src: CloudNetwork\_ec:f7:2f (d8:08:83:ec:f7:2f), Dst: fa:ef:df:8e:c9:e2 (fa:ef:df:8e:c9:e2)
- Internet Protocol Version 6, Src: 64:ff9b::cc4f:c5de, Dst: 2402:3a80:1cbd:e251::
- Transmission Control Protocol, Src Port: 443, Dst Port: 12993, Seq: 1, Ack: 1, Len: 0

The packet bytes pane shows the raw data of the TCP segment, including the header and the application data.

**Bottom Screenshot: Domain Name System: Protocol**

The bottom screenshot shows a packet capture of DNS traffic. The filter is set to `dns`. The packet list shows 4 packets. The packet details pane shows the selected packet (No. 4) with the following information:

- Frame 726: 88 bytes on wire (704 bits), 88 bytes captured (704 bits) on interface \Device\NPF...
- Ethernet II, Src: CloudNetwork\_ec:f7:2f (d8:08:83:ec:f7:2f), Dst: fa:ef:df:8e:c9:e2 (fa:ef:df:8e:c9:e2)
- Internet Protocol Version 4, Src: 192.168.181.237, Dst: 192.168.181.110
- User Datagram Protocol, Src Port: 57899, Dst Port: 53
- Domain Name System (query)

The packet bytes pane shows the raw data of the DNS query, including the header and the query data.

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udp

No.	Time	Source	Destination	Protocol	Length	Info
719	36.451489	192.168.181.237	192.168.6.1	UDP	42	57808 → 53 Len=0
720	36.451544	192.168.181.237	192.168.181.110	UDP	42	57809 → 53 Len=0
721	36.451643	192.168.181.237	192.168.181.110	UDP	42	57807 → 53 Len=0
722	36.451706	192.168.181.237	192.168.6.1	UDP	42	57808 → 53 Len=0
723	36.451764	192.168.181.237	192.168.181.110	UDP	42	57809 → 53 Len=0
724	36.451866	192.168.181.237	192.168.181.110	UDP	42	57807 → 53 Len=0
725	36.451929	192.168.181.237	192.168.6.1	UDP	42	57808 → 53 Len=0
726	36.451996	192.168.181.237	192.168.181.110	DNS	88	Standard query 0x8b9f PTR 110.181.168.192.in-addr.arpa
727	36.452109	192.168.181.237	192.168.181.110	UDP	42	57807 → 53 Len=0
728	36.452174	192.168.181.237	192.168.6.1	UDP	42	57808 → 53 Len=0
729	36.452236	192.168.181.237	192.168.181.110	UDP	42	57809 → 53 Len=0
730	36.452324	192.168.181.237	192.168.181.110	UDP	42	57807 → 53 Len=0
731	36.452385	192.168.181.237	192.168.6.1	UDP	42	57808 → 53 Len=0
732	36.452437	192.168.181.237	192.168.181.110	UDP	42	57809 → 53 Len=0
733	36.452515	192.168.181.237	192.168.181.110	UDP	42	57807 → 53 Len=0
734	36.452681	192.168.181.237	192.168.6.1	UDP	42	57808 → 53 Len=0

> Frame 726: 88 bytes on wire (704 bits), 88 bytes captured (704 bits) on interface \Device\NPF...  
> Ethernet II, Src: CloudNetwork\_ec:f7:2f (d8:00:83:ec:f7:2f), Dst: fa:ef:df:8e:c9:e2 (fa:ef:df:8e:c9:e2)  
> Internet Protocol Version 4, Src: 192.168.181.237, Dst: 192.168.181.110  
> User Datagram Protocol, Src Port: 57809, Dst Port: 53  
> Domain Name System (query)

0000 fa ef df 8e c9 e2 d8 00 83 ec f7 2f 00 00 45 00 .....E-  
0010 00 4a 8e a4 00 00 00 11 bf 51 c0 a8 b5 ed c0 a8 .....Q.....  
0020 05 6e e1 d1 00 35 00 36 ab 51 8b 9f 01 00 00 01 .....56 Q.....  
0030 00 00 00 00 00 00 03 31 31 30 03 31 38 31 03 31 .....10:181-1  
0040 36 38 03 31 39 32 07 69 6e 2d 61 64 72 04 61 68:192-1 n-addr:a  
0050 72 70 61 00 00 0c 00 01 rpa.....

User Datagram Protocol: Protocol

Packets: 4214 - Displayed: 1528 (36.3%) - Dropped: 0 (0.0%) Profile: Default

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arp

No.	Time	Source	Destination	Protocol	Length	Info
603	34.766288	CloudNetwork_ec:f7:2f	Broadcast	ARP	42	Who has 192.168.181.210? Tell 192.168.181.237
604	34.766402	CloudNetwork_ec:f7:2f	Broadcast	ARP	42	Who has 192.168.181.220? Tell 192.168.181.237
605	34.766555	CloudNetwork_ec:f7:2f	Broadcast	ARP	42	Who has 192.168.181.225? Tell 192.168.181.237
606	34.766695	CloudNetwork_ec:f7:2f	Broadcast	ARP	42	Who has 192.168.181.231? Tell 192.168.181.237
607	34.766890	CloudNetwork_ec:f7:2f	Broadcast	ARP	42	Who has 192.168.181.232? Tell 192.168.181.237
608	34.767006	CloudNetwork_ec:f7:2f	Broadcast	ARP	42	Who has 192.168.181.234? Tell 192.168.181.237
609	34.767110	CloudNetwork_ec:f7:2f	Broadcast	ARP	42	Who has 192.168.181.235? Tell 192.168.181.237
610	34.788828	CloudNetwork_ec:f7:2f	Broadcast	ARP	42	Who has 192.168.181.91? Tell 192.168.181.237
611	34.781076	CloudNetwork_ec:f7:2f	Broadcast	ARP	42	Who has 192.168.181.98? Tell 192.168.181.237
612	34.781290	CloudNetwork_ec:f7:2f	Broadcast	ARP	42	Who has 192.168.181.101? Tell 192.168.181.237
613	34.781411	CloudNetwork_ec:f7:2f	Broadcast	ARP	42	Who has 192.168.181.103? Tell 192.168.181.237
614	34.781513	CloudNetwork_ec:f7:2f	Broadcast	ARP	42	Who has 192.168.181.104? Tell 192.168.181.237
615	34.781639	CloudNetwork_ec:f7:2f	Broadcast	ARP	42	Who has 192.168.181.112? Tell 192.168.181.237
1441	52.534205	fa:ef:df:8e:c9:e2	CloudNetwork_ec:f7:2f	ARP	42	Who has 192.168.181.237? Tell 192.168.181.110
1442	52.534257	CloudNetwork_ec:f7:2f	fa:ef:df:8e:c9:e2	ARP	42	192.168.181.237 is at d8:00:83:ec:f7:2f

> Frame 615: 42 bytes on wire (336 bits), 42 bytes captured (336 bits) on interface \Device\NPF...  
> Ethernet II, Src: CloudNetwork\_ec:f7:2f (d8:00:83:ec:f7:2f), Dst: Broadcast (ff:ff:ff:ff:ff:ff)  
> Address Resolution Protocol (request)

0000 ff ff ff ff ff ff d8 00 83 ec f7 2f 00 06 00 01 ...../.....  
0010 08 00 06 04 00 01 d8 00 83 ec f7 2f c0 a8 b5 ed ...../.....  
0020 00 00 00 00 00 00 c0 a8 b5 70 .....p

Address Resolution Protocol: Protocol

Packets: 4214 - Displayed: 520 (12.3%) - Dropped: 0 (0.0%) Profile: Default

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