[illegible]

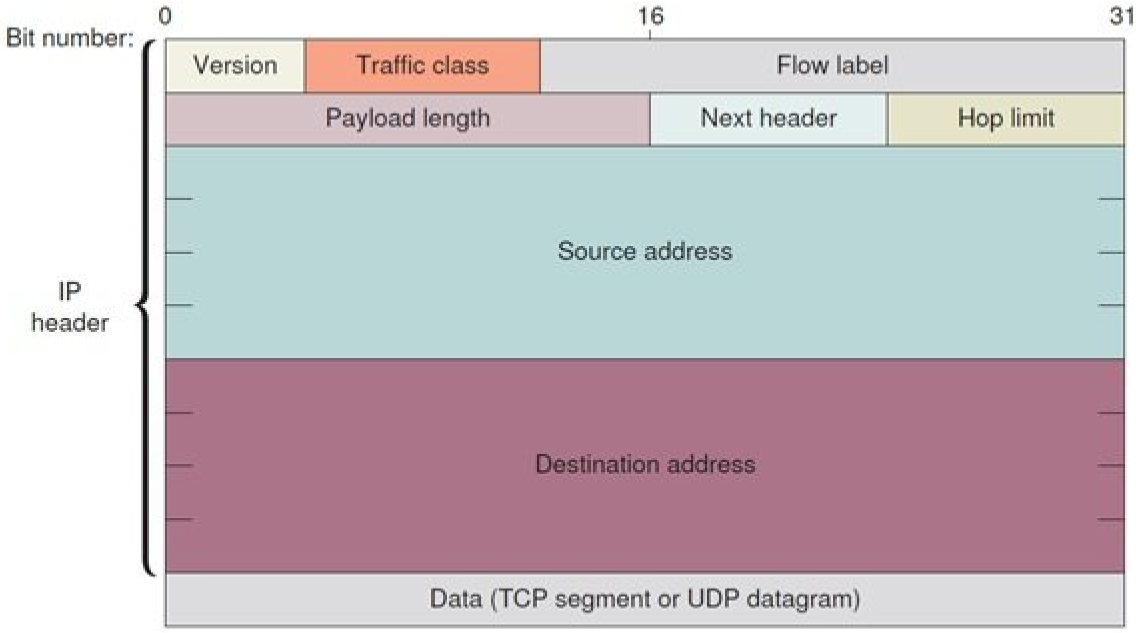
[illegible] (Network+) [illegible] IPv6[illegible] ICMP [illegible] (27 [illegible])

[illegible] TCP[illegible] UDP [illegible] IPv4 [illegible] IPv6 [illegible] Ipv6 [illegible] ICMP [illegible].

[illegible] (Network+) [illegible]

IPv6 [illegible]

[illegible] IPv6 [illegible] IPv4 [illegible] IPv6 [illegible].



یک بسته IPv6

[illegible]:

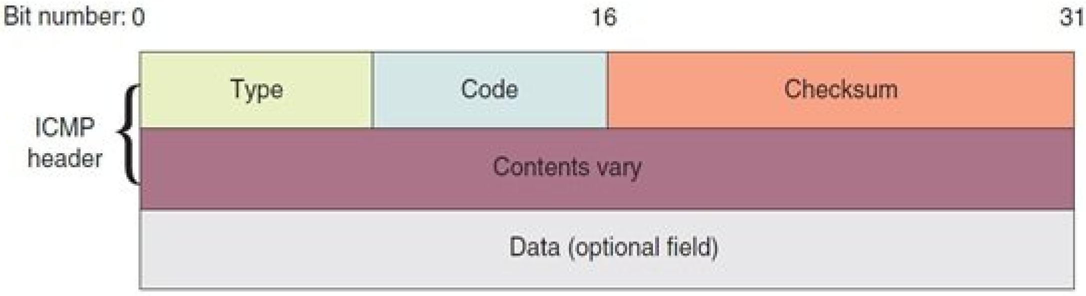
	[illegible]	[illegible]	[illegible]
[illegible]	Version	4 bits	[illegible] IPv [illegible].
	Traffic class	8 bits	[illegible] DiffServ [illegible] IPv4 [illegible].
	Flow label	20 bits	[illegible].
	Payload length	16 bits	[illegible] Total length [illegible] Ipv4 [illegible] Payload length [illegible] IPv6 [illegible].
	Next header	8 bits	[illegible] IP [illegible] TCP [illegible] UDP [illegible].
	Hop limit	8 bits	[illegible] TTL [illegible] IPv4 [illegible] hop limit [illegible] 0 [illegible].
	Source address	128 bits	[illegible].
	Destination address	128 bits	[illegible].
	Data	Variable	[illegible] IPv6 [illegible] IPv6 [illegible] HPv6 [illegible].

[illegible] IPv6 [illegible] IPv4 [illegible]

[illegible] 4 [illegible] Version [illegible]. [illegible] TTL [illegible] Ipv4 [illegible] hop limit [illegible] Ipv6 [illegible] [illegible]. [illegible] IPv6 [illegible] [illegible]. [illegible] IPv6 [illegible] Fragment offset [illegible] IPv6 [illegible].

[illegible] (ICMP) [illegible] Internet Control Message Protocol

[illegible] IP [illegible] (ICMP) [illegible]. [illegible] TTL [illegible]. ICMP [illegible] TCP [illegible]. [illegible] ICMP [illegible]. [illegible] ICMP [illegible] ping [illegible]. [illegible] 3 [illegible] IP [illegible] ICMP [illegible] IP [illegible] ICMP [illegible]. [illegible] ICMP [illegible].



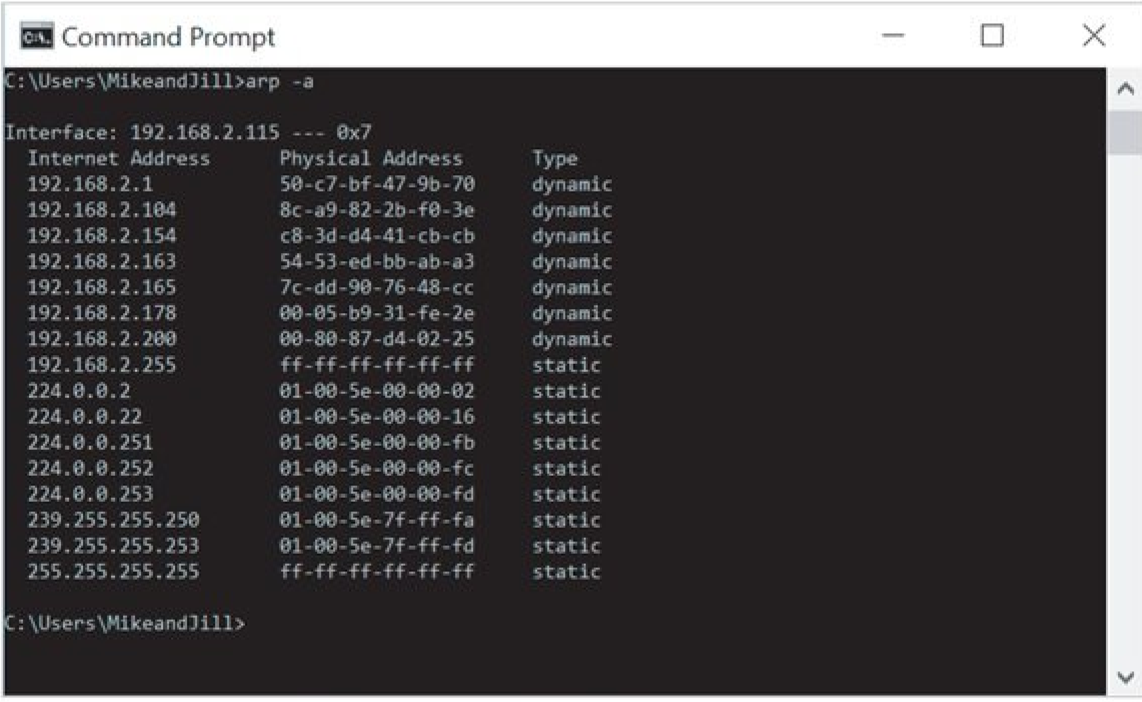
یک بسته ICMP

[illegible]. [illegible] ICMP [illegible].

[illegible]	[illegible]		[illegible]
[illegible]	Type	bits 8	[illegible] ICMP [illegible]
	Code	bits 8	[illegible]
	Checksum	bits 16	[illegible] ICMP [illegible].
	Rest of header	bits 32	[illegible]
	Data	Variable	[illegible] 8 [illegible] ICMP [illegible].

IPv6 [illegible] ICMPv6 [illegible] ICMPv4 [illegible] ARP [illegible] IPv4 [illegible]. [illegible] ICMPv4 [illegible] ICMPv6 [illegible]

[illegible] ARP [illegible] IPv4 [illegible]. [illegible] **ARP** [illegible]. [illegible] ARP [illegible] arp -a [illegible].



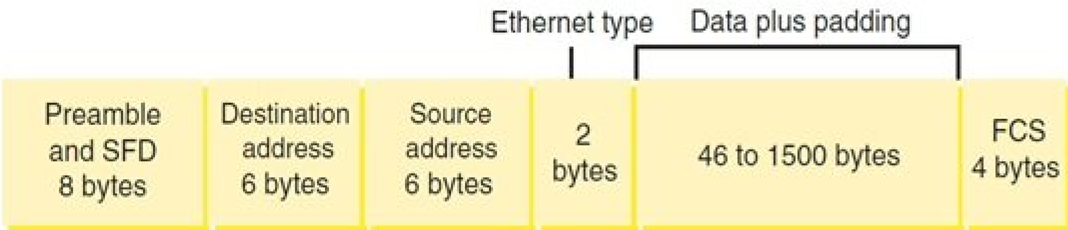
```
C:\Users\MikeandJill>arp -a

Interface: 192.168.2.115 --- 0x7
  Internet Address      Physical Address      Type
  192.168.2.1           50-c7-bf-47-9b-70     dynamic
  192.168.2.104         8c-a9-82-2b-f0-3e     dynamic
  192.168.2.154         c8-3d-d4-41-cb-cb     dynamic
  192.168.2.163         54-53-ed-bb-ab-a3     dynamic
  192.168.2.165         7c-dd-90-76-48-cc     dynamic
  192.168.2.178         00-05-b9-31-fe-2e     dynamic
  192.168.2.200         00-80-87-d4-02-25     dynamic
  192.168.2.255         ff-ff-ff-ff-ff-ff     static
  224.0.0.2             01-00-5e-00-00-02     static
  224.0.0.22            01-00-5e-00-00-16     static
  224.0.0.251           01-00-5e-00-00-fb     static
  224.0.0.252           01-00-5e-00-00-fc     static
  224.0.0.253           01-00-5e-00-00-fd     static
  239.255.255.250       01-00-5e-7f-ff-fa     static
  239.255.255.253       01-00-5e-7f-ff-fd     static
  255.255.255.255       ff-ff-ff-ff-ff-ff     static

C:\Users\MikeandJill>
```

فرمان arp -a فهرستی از دستگاه های متصل به شبکه را نشان می دهد

[illegible] (Ethernet)

[illegible].

Ethernet II [illegible] Xerox [illegible] IEEE [illegible]. [illegible] Ethernet II [illegible].



[illegible] 2 [illegible].

[illegible]	[illegible]	[illegible]	
[illegible].	bytes 7	Preamble	
[illegible].	byte 1	(SFD (start frame delimiter	
[illegible].	bytes 6	Destination address	[illegible]
[illegible].	bytes 6	Source address	
[illegible]. [illegible] IP [illegible] 0x0800 [illegible]	bytes 2	Type field	

[illegible] 46 [illegible].	bytes to 46 1500 bytes	Data	
[illegible] CRC [illegible].	bytes 4	FCS (frame check sequence)	[illegible]

[illegible] SFD [illegible]. [illegible] Wireshark [illegible].

[illegible] FCS [illegible] 18 [illegible]. [illegible] 46 [illegible] 1500 [illegible]. [illegible]:

• 18-byte frame + 46 bytes minimum data size = 64 bytesminimum frame size

• 18-byte frame + 1500 bytes maximum data size = 1518 bytesmaximum frame size

Maximum Transmission Unit [illegible] (MTU) [illegible]

[illegible]. MTU [illegible]. [illegible] MTU [illegible] 2 [illegible]. [illegible] MTU [illegible] 1500 [illegible]. [illegible] 2 [illegible]. [illegible] MTU [illegible]. [illegible].

- [illegible] (VLAN) [illegible] 4 [illegible] Type [illegible].
- [illegible]. [illegible] MTU [illegible] 9198 [illegible].

[illegible] 65535 [illegible] PDU [illegible] 1500 [illegible]. [illegible] IPv4 [illegible]. [illegible] TCP [illegible] MSS [illegible] maximum segment size [illegible].

[illegible] PDU [illegible].

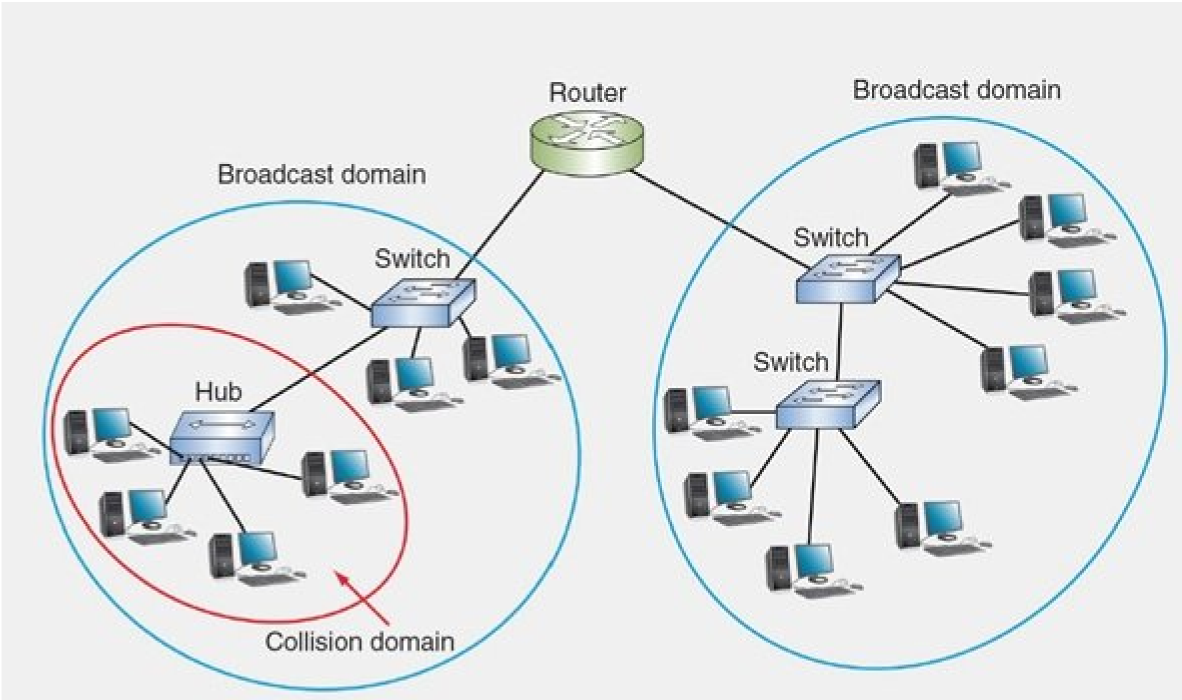
[illegible]: Collisions [illegible] CSMA/CD

[illegible] IEEE [illegible] 1980 [illegible] CSMA/CD IEEE 802.3 [illegible] CSMA/CD [illegible] 2 [illegible]. [illegible] 802.3 [illegible] 2 [illegible] DIX [illegible]. [illegible] CSMA/CD [illegible] OSI [illegible]. [illegible] CSMA/CD (Carrier Sense Multiple Access with Collision Detection) [illegible]. [illegible] Carrier Sense Multiple Access with Collision Detection) [illegible].

- Carrier Sense [illegible].
- Multiple Access [illegible].
- Collision Detection [illegible].

[illegible].

[illegible]: [illegible] (collision) [illegible] (broadcast) [illegible]. [illegible] (broadcast) [illegible]. [illegible] (collision) [illegible]. [illegible] broadcast [illegible] collision [illegible].



[illegible] IPv6 [illegible].

معرفی آموزشگاه‌های معتبر دوره نتورک پلاس در سراسر کشور

[illegible] ([illegible]): [illegible] [illegible]
[illegible]
[illegible]: 02188735845 [illegible]: @Asrehshabakeh

[illegible] ([illegible]): [illegible] [illegible]
[illegible]: 01333241269 [illegible]: @HivaShabake

[illegible]:
[illegible]
[illegible]:
[illegible]
[illegible]:
07:55 - 15/12/1397
[illegible]:
[illegible] - [illegible] - [illegible] - [illegible] - [illegible] - [illegible] - Network+ [illegible] - Network+ - [illegible] - [illegible] - Network+ - Network [illegible] - [illegible]

[illegible]
[illegible]: https://www.shabakeh-mag.com/networking-technology/14762/%D8%A2%D9%85%D9%88%D8%B2%D8%B4-%D8%B1%D8%A7%DB%8C%DA%AF%D8%A7%D9%86-%D8%AF%D9%88%D8%B1%D9%87-%D9%86%D8%AA%D9%88%D8%B1%DA%A9%E2%80%8C%D9%BE%D9%84%D8%A7%D8%B3-network-%D8%A2%D8%B4%D9%86%D8%A7%DB%8C%DB%8C-%D8%A8%D8%A7-%D8%A8%D8%B3%D8%AA%D9%87%E2%80%8C%D9%87%D8%A7%DB%8C-ipv6%D8%8C-

%D8%AF%D8%A7%D9%85%D9%86%D9%87