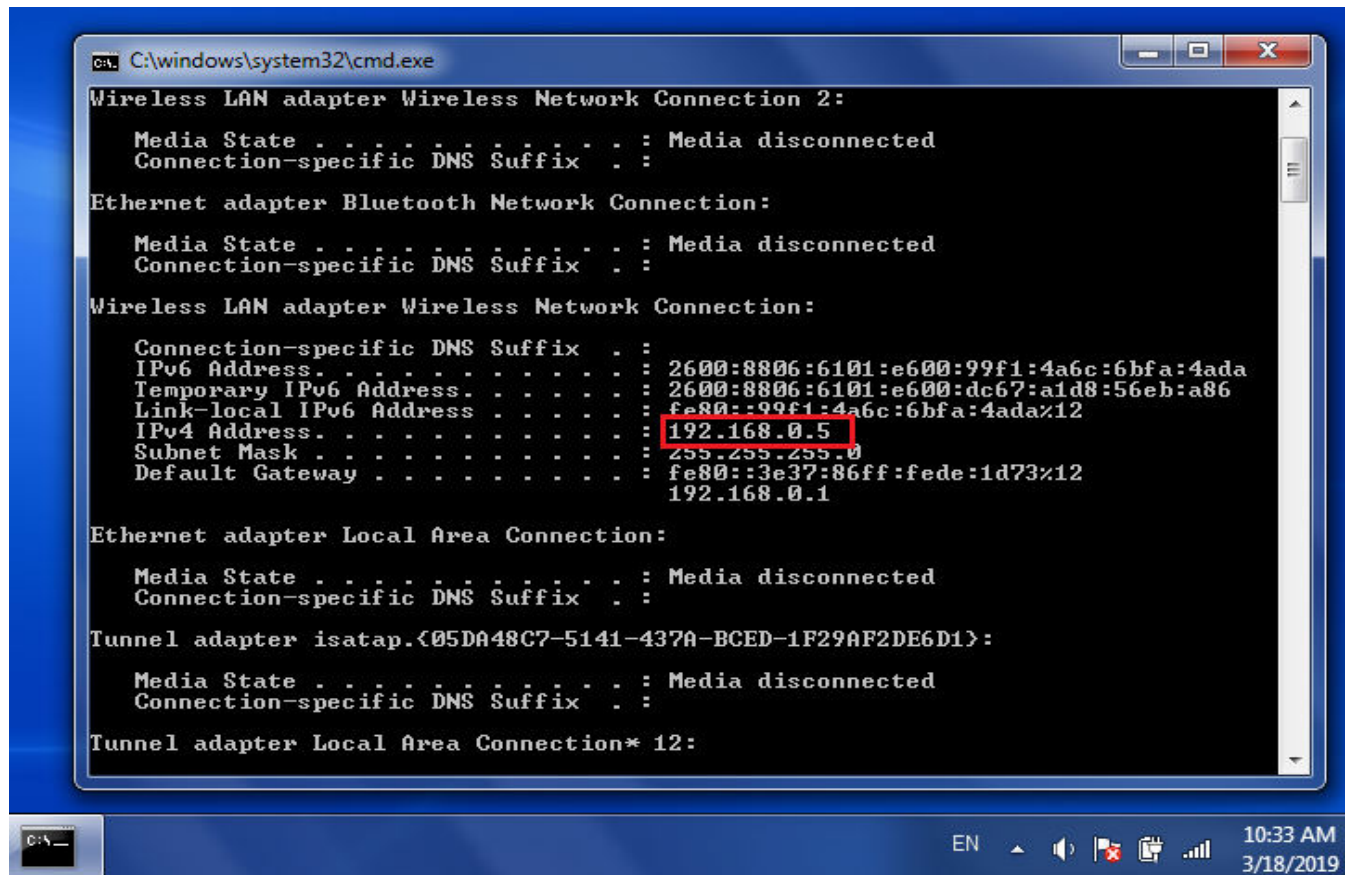


Name: Mohammad Alhomidan

ID:2510431

192.168.0.5



```
C:\windows\system32\cmd.exe

Wireless LAN adapter Wireless Network Connection 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Ethernet adapter Bluetooth Network Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Wireless Network Connection:

    Connection-specific DNS Suffix  . :
    IPv6 Address. . . . . : 2600:8806:6101:e600:99f1:4a6c:6bfa:4ada
    Temporary IPv6 Address. . . . . : 2600:8806:6101:e600:dc67:a1d8:56eb:a86
    Link-local IPv6 Address . . . . . : fe80::99f1:4a6c:6bfa:4ada%12
    IPv4 Address. . . . . : 192.168.0.5
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : fe80::3e37:86ff:fede:1d73%12
                                192.168.0.1

Ethernet adapter Local Area Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Tunnel adapter isatap.{05DA48C7-5141-437A-BCED-1F29AF2DE6D1}:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Tunnel adapter Local Area Connection* 12:
```

The screenshot shows a Windows command prompt window with the title "C:\windows\system32\cmd.exe". The output displays network configuration for several adapters. The "Wireless LAN adapter Wireless Network Connection" section shows an IPv4 address of 192.168.0.5, which is highlighted with a red box. The "Ethernet adapter Bluetooth Network Connection" and "Ethernet adapter Local Area Connection" sections show media as disconnected. The "Tunnel adapter isatap..." section also shows media as disconnected. The "Tunnel adapter Local Area Connection* 12" section is partially visible. The taskbar at the bottom shows the system clock as 10:33 AM on 3/18/2019.

1. What is the IP address of your computer?

192.168.0.5

The image shows a Wireshark network traffic capture. The top pane displays a list of packets. Packet 172 is selected, showing a TCP ACK from 192.168.0.5 to 128.119.245.12. The bottom pane shows the detailed view of this packet, including Ethernet II, Internet Protocol Version 6, and Transmission Control Protocol fields. The status bar at the bottom indicates 179 packets displayed.

No.	Time	Source	Destination	Protocol	Length	Info
169	10:31:00.318866	2607:f8b0:4000:815::...	2600:8806:6101:e600::...	GQUIC	120	Payload (Encrypted), PKN: 5
170	10:31:00.319079	2600:8806:6101:e600::...	2607:f8b0:4000:815::...	GQUIC	90	Payload (Encrypted), PKN: 6, CID: 122414...
171	10:31:00.378542	2607:f8b0:4000:815::...	2600:8806:6101:e600::...	GQUIC	82	Payload (Encrypted), PKN: 6
172	10:31:00.512548	192.168.0.5	128.119.245.12	TCP	54	58999 → 80 [ACK] Seq=426 Ack=487 Win=652...
173	10:31:00.528632	192.168.0.5	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
174	10:31:00.701162	192.168.0.5	128.119.245.12	HTTP	450	GET /favicon.ico HTTP/1.1
175	10:31:00.727789	128.119.245.12	192.168.0.5	HTTP	538	HTTP/1.1 404 Not Found (text/html)
176	10:31:00.927656	192.168.0.5	128.119.245.12	TCP	54	58999 → 80 [ACK] Seq=822 Ack=971 Win=647...
177	10:31:01.528813	192.168.0.5	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1

Frame 1: 75 bytes on wire (600 bits), 75 bytes captured (600 bits) on interface 0

Ethernet II, Src: HonHaiPr_26:b5:f1 (38:59:f9:26:b5:f1), Dst: Netgear_de:1d:73 (3c:37:86:de:1d:73)

Internet Protocol Version 6, Src: 2600:8806:6101:e600:dc67:a1d8:56eb:a86, Dst: 2607:f8b0:4000:80f::2003

Transmission Control Protocol, Src Port: 58994, Dst Port: 443, Seq: 1, Ack: 1, Len: 1

0000 3c 37 86 de 1d 73 38 59 f9 26 b5 f1 86 dd 60 00 <7...s8Y .&...`

0010 00 00 00 15 06 40 26 00 88 06 61 01 e6 00 dc 67@&...a...g

0020 a1 d8 56 eb 0a 86 26 07 f8 b0 40 00 08 0f 00 00 ..V...&...@....

0030 00 00 00 00 20 03 e6 72 01 bb 9e dc f2 70 bc 7er.....p~

0040 4e f0 50 10 41 14 8e 50 00 00 00 N P A P ...

wireshark_6D8C6C4E-7F69-4A94-83C7-1D7587D59643_20190318102951_a09280.pcapng | Packets: 179 · Displayed: 179 (100.0%) | Profile: Default

10:41 AM 3/18/2019

2. What is the total length of the datagram?

465

The screenshot shows the Wireshark interface with a packet capture on a wireless network connection. The packet list shows several HTTP packets. Packet 157 is selected, showing a GET request to /wireshark-labs/HTTP-wireshark-file1.html. The packet details pane shows the following information:

- Frame 157: 479 bytes on wire (3832 bits), 479 bytes captured (3832 bits) on interface 0
- Ethernet II, Src: HonHaiPr_26:b5:f1 (38:59:f9:26:b5:f1), Dst: Netgear_de:1d:73 (3c:37:86:de:1d:73)
- Internet Protocol Version 4, Src: 192.168.0.5, Dst: 128.119.245.12
 - 0100 = Version: 4
 - 0101 = Header Length: 20 bytes (5)
 - Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
 - Total Length: 465**
 - Identification: 0x5cc7 (23751)
 - Flags: 0x4000, Don't fragment
 - Time to live: 128
 - Protocol: TCP (6)

The packet bytes pane shows the raw data of the packet, including the HTTP request line: GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1.

Bytes 100-107: Request Version (http.request.version) | Packets: 179 · Displayed: 18 (10.1%) · Dropped: 0 (0.0%) | Profile: Default

3. Has this IP datagram been fragmented?

No, it has not. Fragment offset=0

The image shows a Wireshark packet capture window titled "*Wireless Network Connection". The packet list pane shows several HTTP packets. The selected packet (No. 157) is an HTTP GET request to /wireshark-labs/HTTP-wireshark-file1... from 192.168.0.5 to 128.119.245.12. The packet details pane shows the following information:

- 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: 465
- Identification: 0x5cc7 (23751)
- Flags: 0x4000, Don't fragment
- 0... .. = Reserved bit: Not set
- .1.. .. = Don't fragment: Set
- ..0. = More fragments: Not set
- ...0 0000 0000 0000 = Fragment offset: 0
- Time to live: 128

The packet bytes pane shows the raw data of the packet, including the IP header and the HTTP request line: GET /wireshark-labs/HTTP-wireshark-file1... HTTP/1.1. The status bar at the bottom indicates 179 packets displayed, 18 (10.1%) displayed, and 0 (0.0%) dropped.

4. How many bytes are in the IP header?

The header length is 20 bytes

Wireshark network packet capture showing an HTTP GET request. The packet list shows packet 157 as a GET request to /wireshark-labs/HTTP-wireshark-file1. The packet details pane shows the Internet Protocol Version 4 header with a highlighted 'Header Length: 20 bytes (5)'. The packet bytes pane shows the raw data of the HTTP request.

No.	Time	Source	Destination	Protocol	Length	Info
74	10:30:16.072431	192.168.0.5	192.168.0.1	HTTP	191	HTTP/1.1 200 OK
81	10:30:20.541064	192.168.0.1	192.168.0.5	HTTP/X...	638	NOTIFY /upnp/eventing/qjibfijthr HTTP/1.1
82	10:30:20.541573	192.168.0.5	192.168.0.1	HTTP	191	HTTP/1.1 200 OK
116	10:30:47.924632	192.168.0.1	192.168.0.5	HTTP/X...	662	NOTIFY /upnp/eventing/qjibfijthr HTTP/1.1
117	10:30:47.925167	192.168.0.5	192.168.0.1	HTTP	191	HTTP/1.1 200 OK
124	10:30:49.850974	192.168.0.1	192.168.0.5	HTTP/X...	638	NOTIFY /upnp/eventing/qjibfijthr HTTP/1.1
125	10:30:49.851414	192.168.0.5	192.168.0.1	HTTP	191	HTTP/1.1 200 OK
133	10:30:52.870262	192.168.0.1	192.168.0.5	HTTP/X...	638	NOTIFY /upnp/eventing/qjibfijthr HTTP/1.1
134	10:30:52.871627	192.168.0.5	192.168.0.1	HTTP	191	HTTP/1.1 200 OK
157	10:31:00.286171	192.168.0.5	128.119.245.12	HTTP	479	GET /wireshark-labs/HTTP-wireshark-file1...

Frame 157: 479 bytes on wire (3832 bits), 479 bytes captured (3832 bits) on interface 0
Ethernet II, Src: HonHaiPr_26:b5:f1 (38:59:f9:26:b5:f1), Dst: Netgear_de:1d:73 (3c:37:86:de:1d:73)
Internet Protocol Version 4, Src: 192.168.0.5, Dst: 128.119.245.12
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: 465
Identification: 0x5cc7 (23751)
Flags: 0x4000, Don't fragment

0000 3c 37 86 de 1d 73 38 59 f9 26 b5 f1 08 00 45 00 <7...sY ·&...E·
0010 01 d1 5c c7 40 00 80 06 66 2e c0 a8 00 05 80 77 ··\·@··· f·...·w
0020 f5 0c e6 77 00 50 f6 3b b0 62 f1 35 8a 9a 50 18 ··w·P·; ·b·5·P·
0030 40 29 3c bf 00 00 47 45 54 20 2f 77 69 72 65 73 @)<...GE T /wires
0040 68 61 72 6b 2d 6c 61 62 73 2f 48 54 54 50 2d 77 hark-lab s/HTTP-w
0050 69 72 65 73 68 61 72 6b 2d 66 69 6c 65 31 2e 68 ireshark -file1.h
0060 74 6d 6c 20 48 54 54 50 2f 31 2e 31 0d 0a 48 6f tm1 HTTP /1.1·Ho
0070 73 74 3a 20 67 61 69 61 2e 63 73 2e 75 6d 61 73 st: gaia .cs.umas
0080 73 2e 65 64 75 0d 0a 43 6f 6e 6e 65 63 74 69 6f s.edu·C onnectio
0090 6e 3a 20 6b 65 65 70 2d 61 6c 69 76 65 0d 0a 55 n: keep- alive·U
00a0 70 67 72 61 64 65 2d 49 6e 73 65 63 75 72 65 2d pgrade-I nsecure-
00b0 52 65 71 75 65 73 74 73 3a 20 31 0d 0a 55 73 65 Requests : 1·Use
00c0 72 2d 41 67 65 6e 74 3a 20 4d 6f 7a 69 6c 6c 61 r-Agent: Mozilla

Header Length (p_hdr_len), 1 byte | Packets: 179 · Displayed: 18 (10.1%) · Dropped: 0 (0.0%) | Profile: Default

5. How many bytes are in the payload of the IP datagram?

The total length 465 minus header length 20 that gives 445 payload

The image shows a Wireshark packet capture window titled '*Wireless Network Connection'. The packet list on the left shows several HTTP packets. The selected packet is packet 134, an HTTP 200 OK response from 192.168.0.5 to 192.168.0.1. The packet details pane on the right shows the following information:

- Ethernet II, Src: HonHaiPr_26:b5:f1 (38:59:f9:26:b5:f1), Dst: Netgear_de:1d:73 (3c:37:86:de:1d:73)
- Internet Protocol Version 4, Src: 192.168.0.5, Dst: 128.119.245.12
 - 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: 465**
 - Identification: 0x5cc7 (23751)
 - Flags: 0x4000, Don't fragment
 - 0 - Reserved bit: Not set

The packet bytes pane at the bottom shows the raw data in hexadecimal and ASCII. The ASCII part shows the beginning of an HTML response: `<!DOCTYPE html> <html> <head> <title> f...w...</title> </head> <body> <p>...</p> </body> </html>`

At the bottom of the window, the status bar shows: Total Length (ip.len), 2 bytes | Packets: 179 · Displayed: 18 (10.1%) · Dropped: 0 (0.0%) | Profile: Default

No.	Time	Source	Destination	Protocol	Length	Info
165	10:31:00.312536	128.119.245.12	192.168.0.5	HTTP	540	HTTP/1.1
200	OK	(text/html)				

Frame 165: 540 bytes on wire (4320 bits), 540 bytes captured (4320 bits) on interface 0
Ethernet II, Src: Netgear_de:1d:73 (3c:37:86:de:1d:73), Dst: HonHaiPr_26:b5:f1
(38:59:f9:26:b5:f1)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.0.5
Transmission Control Protocol, Src Port: 80, Dst Port: 58999, Seq: 1, Ack: 426, Len: 486
Hypertext Transfer Protocol
Line-based text data: text/html (4 lines)