

Name: Md. Sifat Kamal  
ID: 20101231

## Request Packet:

The image shows a Wireshark packet capture window with a packet list on the left and a packet details pane on the right. The packet list shows two packets: packet 644 at time 25.618225 and packet 652 at time 25.643298. The packet details pane is expanded for packet 644, showing the following information:

- Frame 644: 523 bytes on wire (4184 bits), 523 bytes captured (4184 bits) on interface \Device\NPF\_{16F020F8-7F8B-424D-8A8C-9A2D43B1D72A}, id 0
- Section number: 1
- Interface id: 0 (\Device\NPF\_{16F020F8-7F8B-424D-8A8C-9A2D43B1D72A})
- Interface name: \Device\NPF\_{16F020F8-7F8B-424D-8A8C-9A2D43B1D72A}
- Interface description: Wi-Fi
- Encapsulation type: Ethernet (1)
- Arrival Time: Oct 29, 2023 22:13:09.055030000 Bangladesh Standard Time
- [Time shift for this packet: 0.000000000 seconds]
- Epoch Time: 1698595989.055030000 seconds
- [Time delta from previous captured frame: 0.000163000 seconds]
- [Time delta from previous displayed frame: 0.000000000 seconds]
- [Time since reference or first frame: 25.618225000 seconds]
- Frame Number: 644
- Frame Length: 523 bytes (4184 bits)
- Capture Length: 523 bytes (4184 bits)
- [Frame is marked: False]
- [Frame is ignored: False]
- [Protocols in frame: eth:ethertype:ip:tcp:http]
- [Coloring Rule Name: HTTP]
- [Coloring Rule String: http || tcp.port == 80 || http2]
- Ethernet II, Src: AzureWav\_30:f8:05 (08:91:33:30:f8:05), Dst: TP-Link\_f9:8d:19 (e8:48:b8:f9:8d:19)
- Internet Protocol Version 4, Src: 192.168.0.101, Dst: 103.230.106.216
- Transmission Control Protocol, Src Port: 51302, Dst Port: 80, Seq: 1, Ack: 1, Len: 469
- Hypertext Transfer Protocol

The packet bytes pane shows the raw data of the packet, with the following hex and ASCII representation:

```
0000 e8 48 b8 f9 8d 19 80 01 33 30 f8 05 08 00 45 00 .H.....30....E
0010 01 fd 5e 71 40 00 00 06 06 be c0 a8 00 65 67 e6 .?B.....eg
0020 6a d8 c8 66 00 50 af 69 a3 60 a9 e2 09 20 50 18 j..f.P.i.....P
0030 fa f0 ad 5c 00 00 47 45 54 20 2f 20 48 54 54 50 ...\\..GE T / HTTP
```

The packet bytes pane also shows the raw data of the packet, with the following hex and ASCII representation:

```
0130 6f 6e 2f 78 68 74 6d 6c 2b 78 6d 6c 2c 61 70 70 on/xhtml+xml,app
0140 6c 69 63 61 74 69 6f 6e 2f 78 6d 6c 3b 71 3d 30 lication /xml;q=0
0150 2e 39 2c 69 6d 61 67 65 2f 61 76 69 66 2c 69 6d .9,image/avif,im
0160 61 67 65 2f 77 65 62 70 2c 69 6d 61 67 65 2f 61 age/webp ,image/a
```

The packet bytes pane also shows the raw data of the packet, with the following hex and ASCII representation:

```
0130 6f 6e 2f 78 68 74 6d 6c 2b 78 6d 6c 2c 61 70 70 on/xhtml+xml,app
0140 6c 69 63 61 74 69 6f 6e 2f 78 6d 6c 3b 71 3d 30 lication /xml;q=0
0150 2e 39 2c 69 6d 61 67 65 2f 61 76 69 66 2c 69 6d .9,image/avif,im
0160 61 67 65 2f 77 65 62 70 2c 69 6d 61 67 65 2f 61 age/webp ,image/a
```

Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Wireshark - Packet 644 - Wi-Fi

No. Time

644 25.618225

652 25.643298

> Frame 644: 523 bytes on wire (4184 bits), 523 bytes captured (4184 bits) on interface \Device\NPF\_{16F020F8-7F8B-424D-8A8C-9A2D4381D72A}, id 0

> Ethernet II, Src: AzureWav\_30:f8:05 (80:91:33:30:f8:05), Dst: TP-Link\_f9:8d:19 (e8:48:b8:f9:8d:19)

> Destination: TP-Link\_f9:8d:19 (e8:48:b8:f9:8d:19)

Address: TP-Link\_f9:8d:19 (e8:48:b8:f9:8d:19)

.....0 ..... = LG bit: Globally unique address (factory default)

.....0 ..... = IG bit: Individual address (unicast)

> Source: AzureWav\_30:f8:05 (80:91:33:30:f8:05)

Address: AzureWav\_30:f8:05 (80:91:33:30:f8:05)

.....0 ..... = LG bit: Globally unique address (factory default)

.....0 ..... = IG bit: Individual address (unicast)

Type: IPv4 (0x0800)

> Internet Protocol Version 4, Src: 192.168.0.101, Dst: 103.230.106.216

> Transmission Control Protocol, Src Port: 51302, Dst Port: 80, Seq: 1, Ack: 1, Len: 469

> Hypertext Transfer Protocol

> Frame 644: 523 bytes on wire (4184 bits), 523 bytes captured (4184 bits) on interface \Device\NPF\_{16F020F8-7F8B-424D-8A8C-9A2D4381D72A}, id 0

> Ethernet II, Src: AzureWav\_30:f8:05 (80:91:33:30:f8:05), Dst: TP-Link\_f9:8d:19 (e8:48:b8:f9:8d:19)

> Internet Protocol Version 4, Src: 192.168.0.101, Dst: 103.230.106.216

> Transmission Control Protocol, Src Port: 51302, Dst Port: 80, Seq: 1, Ack: 1, Len: 469

> Hypertext Transfer Protocol

0000 e8 48 b8 f9 8d 19 80 91 33 30 f8 05 08 00 45 00 -H----- 30----E

0010 01 fd 5e 71 40 00 00 06 06 be c0 a8 00 65 67 ec -^g@.....c

0020 5a d5 c8 66 00 50 af 69 a3 60 a9 e2 09 20 50 18 f f P i .....P

0030 fa f0 ad 5c 00 00 47 45 54 20 2f 20 48 54 54 50 ---\--GE T / HTTP

☒ Show packet bytes

Close Help

0130 6f 6e 2f 78 68 74 6d 6c 2b 78 6d 6c 2c 61 70 70 on/xhtml+xml,app

0140 6c 69 63 61 74 69 6f 6e 2f 78 6d 6c 3b 71 3d 30 lication/xml;q=0

0150 2e 39 2c 69 6d 61 67 65 2f 61 76 69 66 2c 69 6d .9,image/avif,im

0160 61 67 65 2f 77 65 62 70 2c 69 6d 61 67 65 2f 61 age/webp ,image/a

Packets: 2900 - Displayed: 2 (0.1%) Profile: Default

Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Wireshark - Packet 644 - Wi-Fi

No. Time

644 25.618225

652 25.643298

> Frame 644: 523 bytes on wire (4184 bits), 523 bytes captured (4184 bits) on interface \Device\NPF\_{16F020F8-7F8B-424D-8A8C-9A2D4381D72A}, id 0

> Ethernet II, Src: AzureWav\_30:f8:05 (80:91:33:30:f8:05), Dst: TP-Link\_f9:8d:19 (e8:48:b8:f9:8d:19)

> Internet Protocol Version 4, Src: 192.168.0.101, Dst: 103.230.106.216

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: 509

Identification: 0x5e71 (24177)

> 010. .... = Flags: 0x2, 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

Protocol: TCP (6)

Header Checksum: 0x06be [validation disabled]

[Header checksum status: Unverified]

Source Address: 192.168.0.101

Destination Address: 103.230.106.216

> Transmission Control Protocol, Src Port: 51302, Dst Port: 80, Seq: 1, Ack: 1, Len: 469

> Hypertext Transfer Protocol

> Frame 644: 523 bytes on wire (4184 bits), 523 bytes captured (4184 bits) on interface \Device\NPF\_{16F020F8-7F8B-424D-8A8C-9A2D4381D72A}, id 0

> Ethernet II, Src: AzureWav\_30:f8:05 (80:91:33:30:f8:05), Dst: TP-Link\_f9:8d:19 (e8:48:b8:f9:8d:19)

> Internet Protocol Version 4, Src: 192.168.0.101, Dst: 103.230.106.216

> Transmission Control Protocol, Src Port: 51302, Dst Port: 80, Seq: 1, Ack: 1, Len: 469

> Hypertext Transfer Protocol

0000 e8 48 b8 f9 8d 19 80 91 33 30 f8 05 08 00 45 00 -H----- 30----E

0010 01 fd 5e 71 40 00 00 06 06 be c0 a8 00 65 67 ec -^g@.....c

0020 5a d5 c8 66 00 50 af 69 a3 60 a9 e2 09 20 50 18 f f P i .....P

0030 fa f0 ad 5c 00 00 47 45 54 20 2f 20 48 54 54 50 ---\--GE T / HTTP

☒ Show packet bytes

Close Help

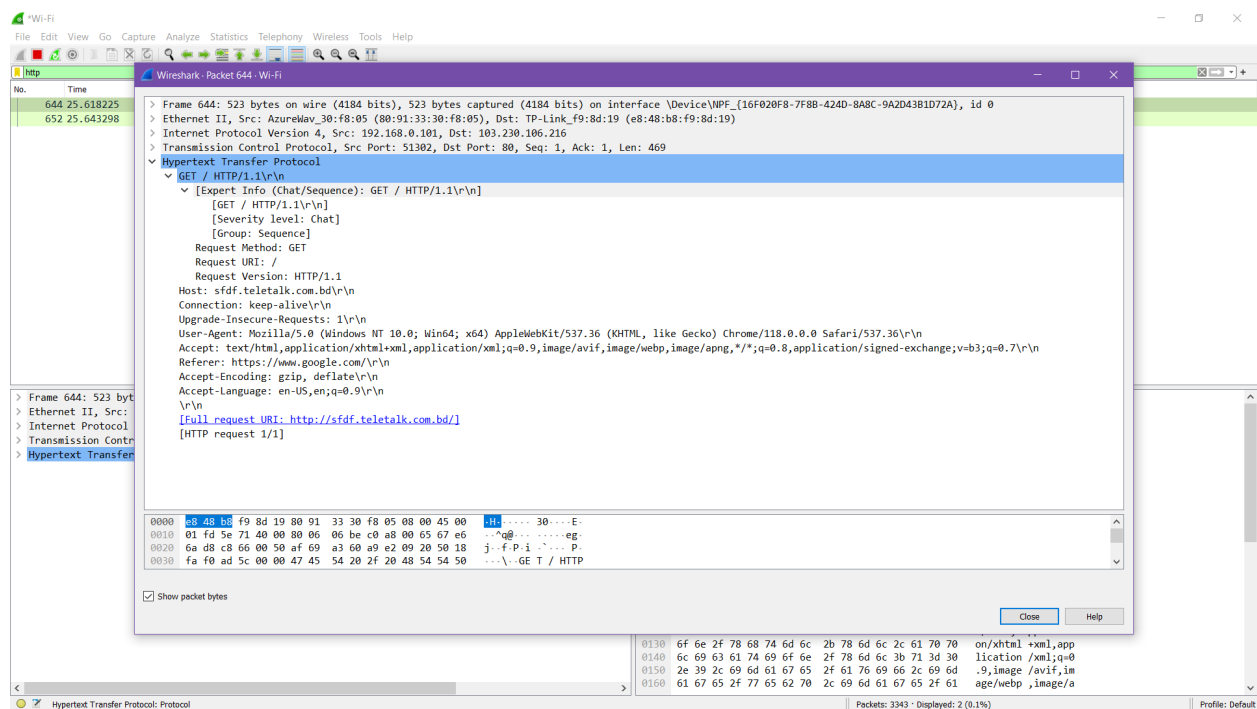
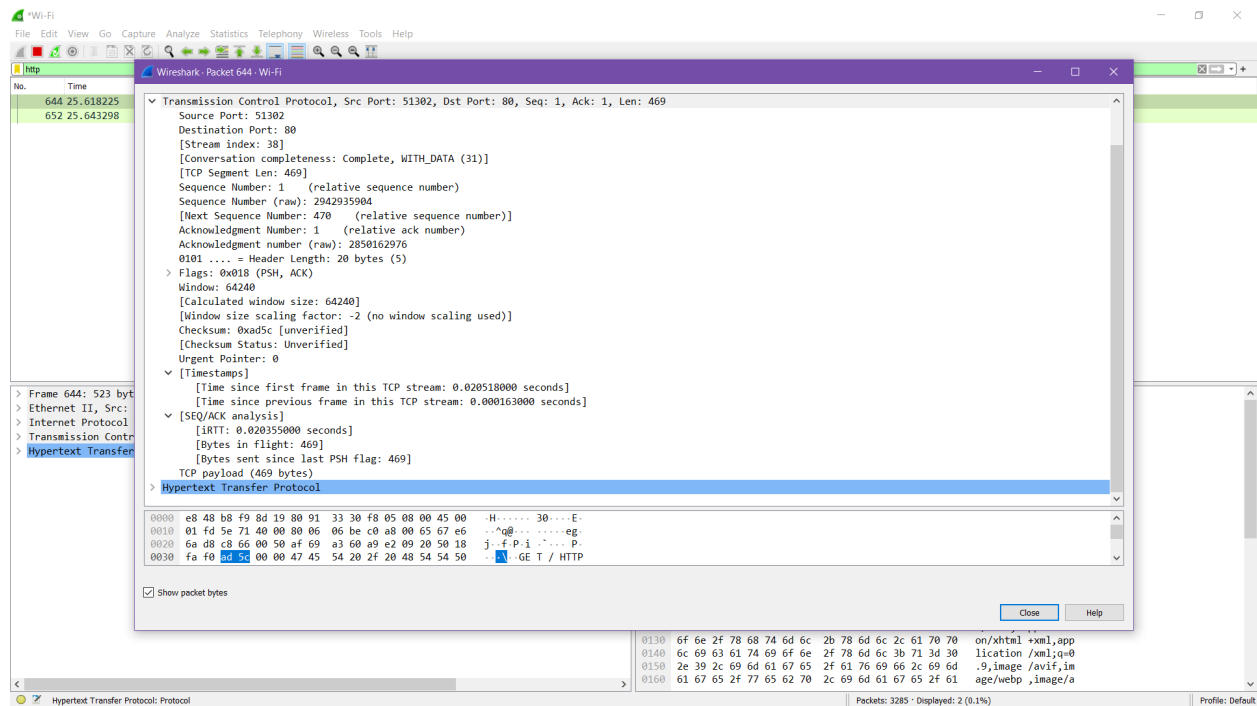
0130 6f 6e 2f 78 68 74 6d 6c 2b 78 6d 6c 2c 61 70 70 on/xhtml+xml,app

0140 6c 69 63 61 74 69 6f 6e 2f 78 6d 6c 3b 71 3d 30 lication/xml;q=0

0150 2e 39 2c 69 6d 61 67 65 2f 61 76 69 66 2c 69 6d .9,image/avif,im

0160 61 67 65 2f 77 65 62 70 2c 69 6d 61 67 65 2f 61 age/webp ,image/a

Packets: 2938 - Displayed: 2 (0.1%) Profile: Default



## Descriptions

**Host:** This basically indicates the server's domain. It helps the server route to request to the correct web application with the provided domain name

**Accept-Language:** It specifies the client's preferred language. It helps to permit the web server for those contents which are matching with the user's preferred language. Here it will only allow it if the language is available.

**User Agent:** It basically contains the client's information. It helps the web servers to optimize. This optimization helps to deliver content for different types of clients.

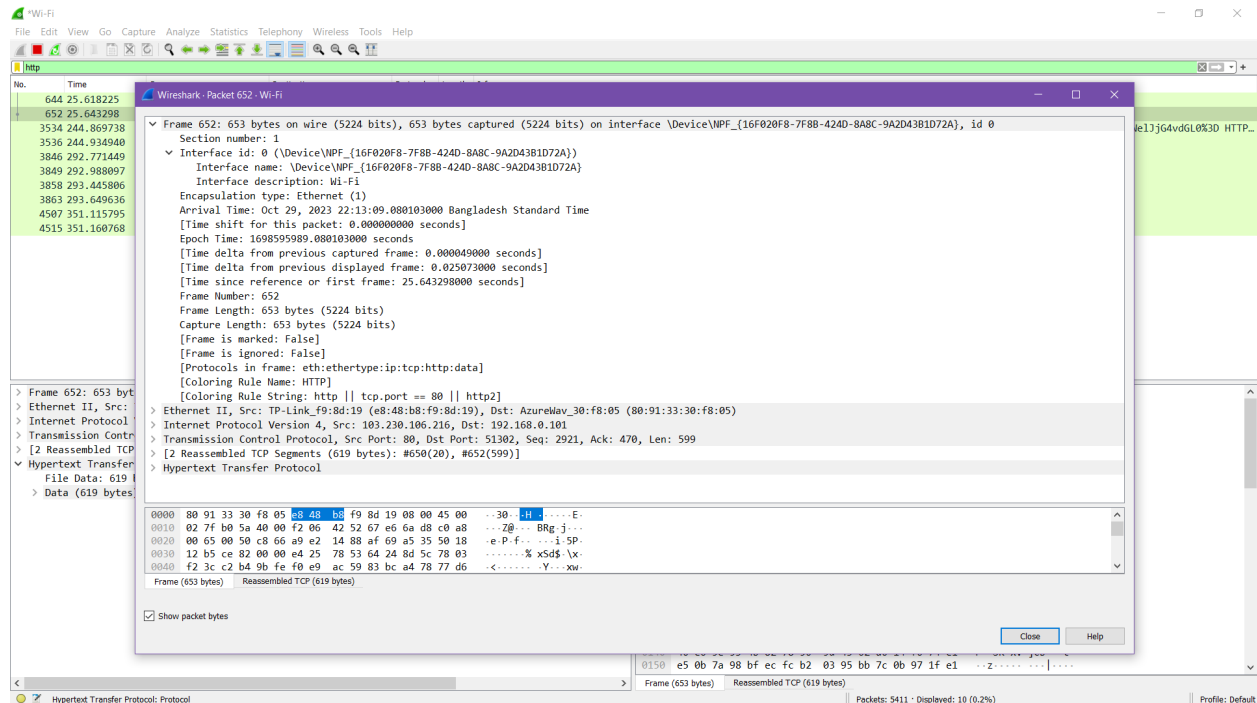
**Upgrade-Insecure-Requests:** It provides strong security and good privacy by requesting secure connections

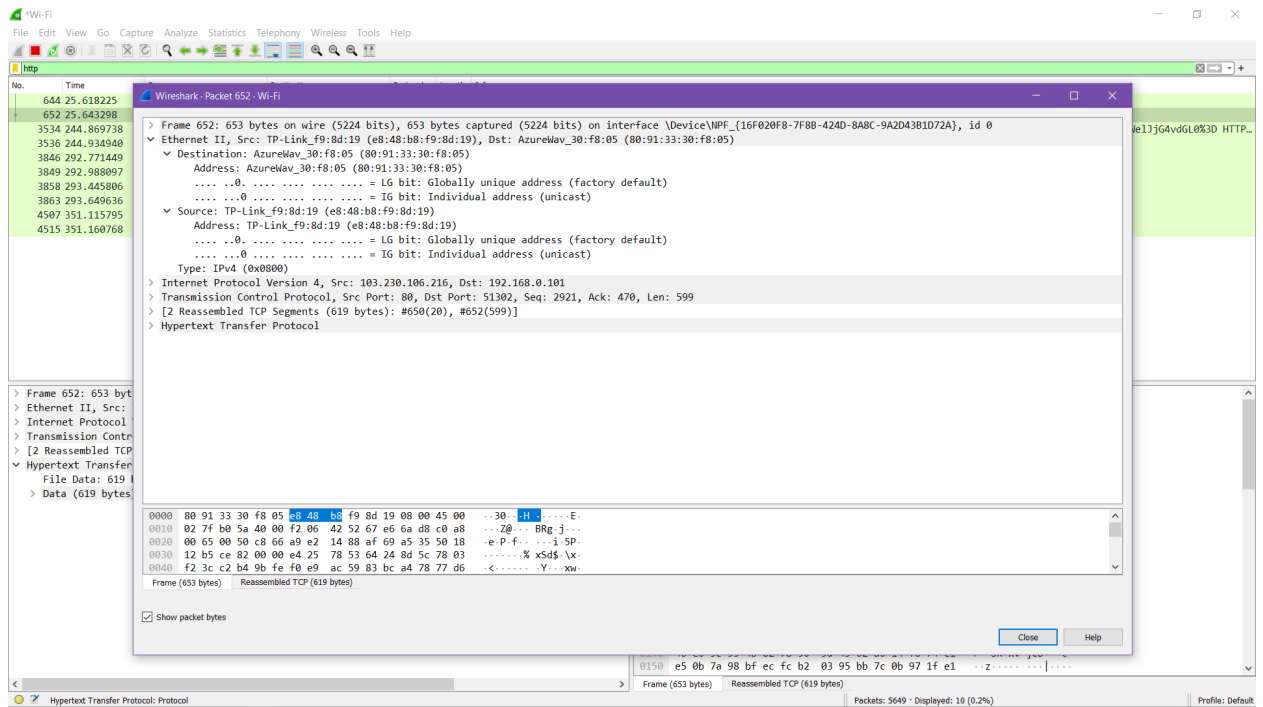
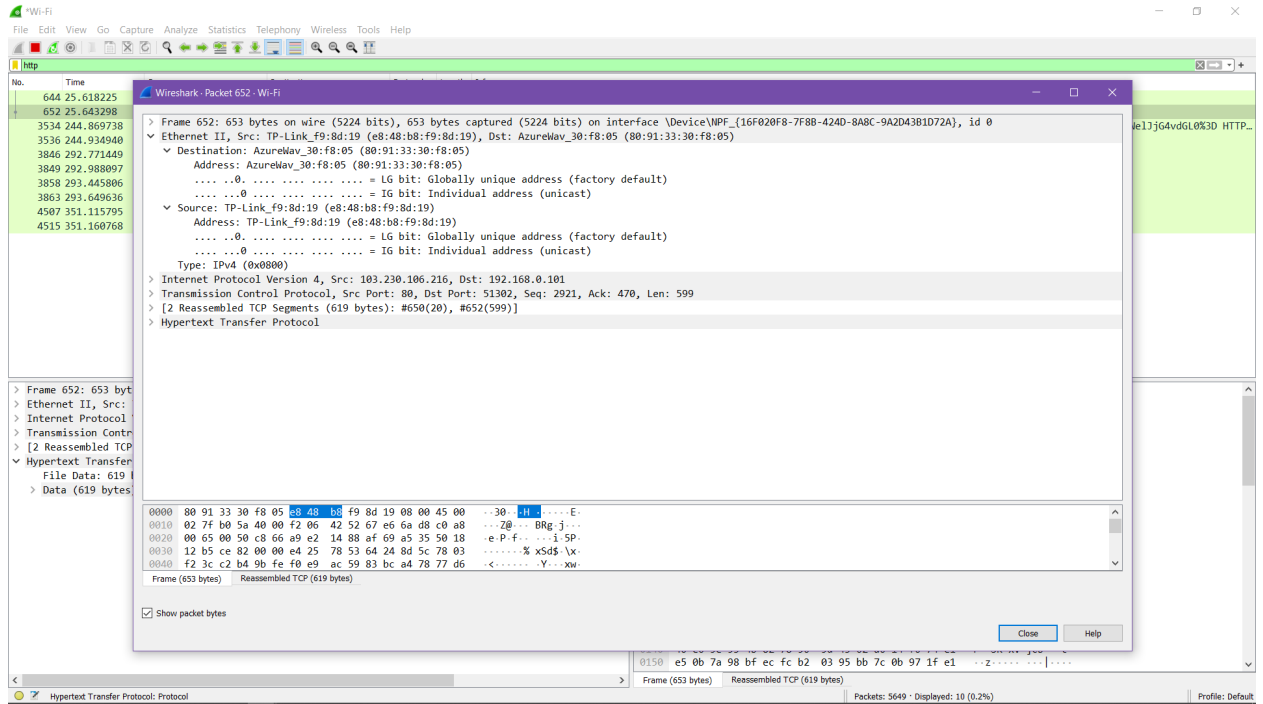
**Method:** It specifies HTTP actions such as: GET, POST, PUT, DELETE, etc.

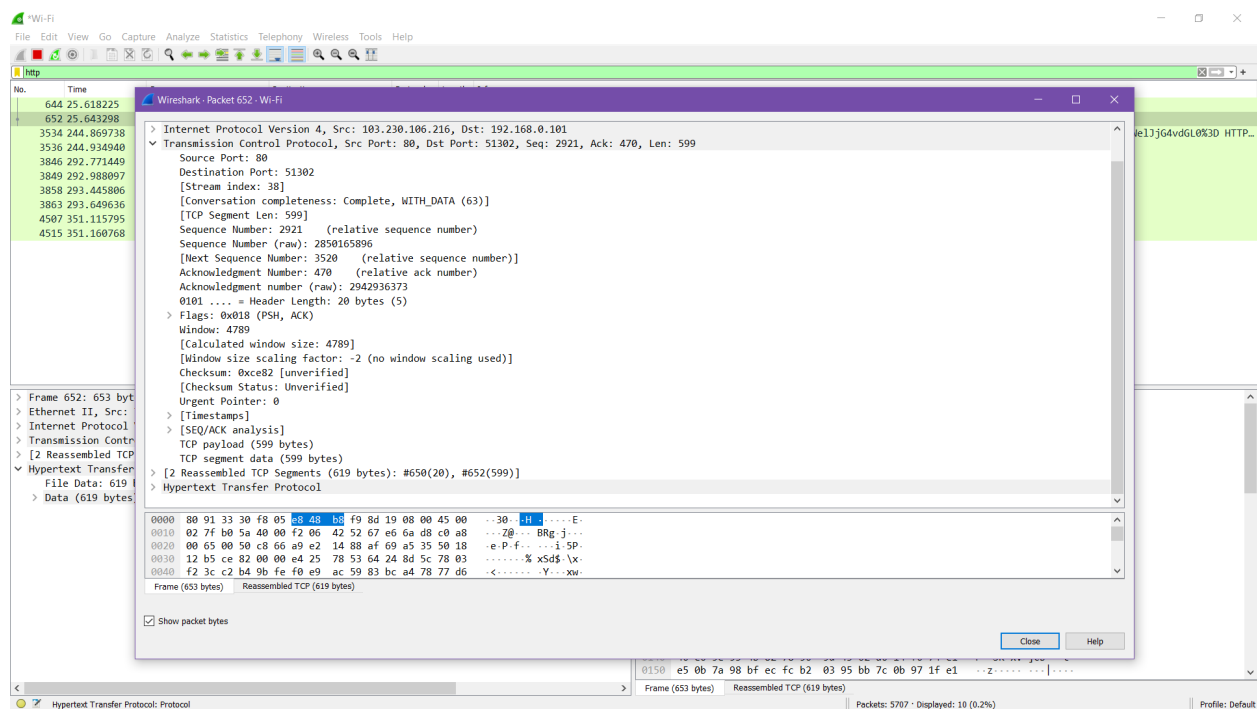
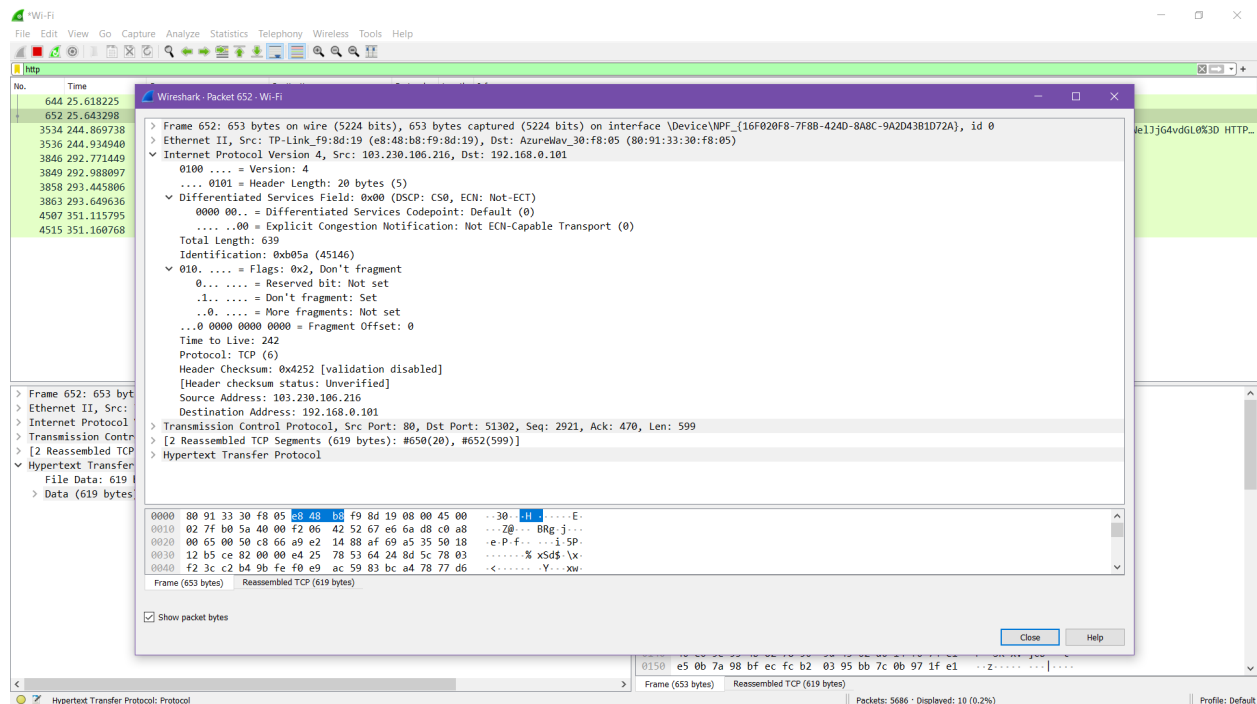
**Connection:** It provides enhanced security and privacy by requesting secure connections.

**Accept-Encoding:** It basically provides permission to the web servers to compress data before transmission, reducing loading speed and reducing bandwidth usage. But it will only work if both server and client support the same encoding method.

## Response Packet:







## Descriptions

**Content-Encoding:** It basically indicates the compression method that is used for providing response as content

**Date:** It specifies the generated time that was taken for the response

**Cache-Control:** It basically gives directions on how the caching should be handled

**HTTP Version:** Version of the HTTP protocol

**Server:** Server Software

**Content-Type:** It specifies the format or media type of the response content

```
> Frame 644: 523 bytes on wire (4184 bits), 523 bytes captured (4184 bits) on interface \Device\NPF_{16F0
> Ethernet II, Src: AzureWav_30:f8:05 (80:91:33:30:f8:05), Dst: TP-Link_f9:8d:19 (e8:48:b8:f9:8d:19)
v Internet Protocol Version 4, Src: 192.168.0.101, Dst: 103.230.106.216
    0100 .... = Version: 4
    .... 0101 = Header Length: 20 bytes (5)
    v 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: 509
    Identification: 0x5e71 (24177)
    v 010. .... = Flags: 0x2, 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
    Protocol: TCP (6)
    Header Checksum: 0x06be [validation disabled]
    [Header checksum status: Unverified]
    Source Address: 192.168.0.101
    Destination Address: 103.230.106.216
> Transmission Control Protocol, Src Port: 51302, Dst Port: 80, Seq: 1, Ack: 1, Len: 469
> Hypertext Transfer Protocol
```