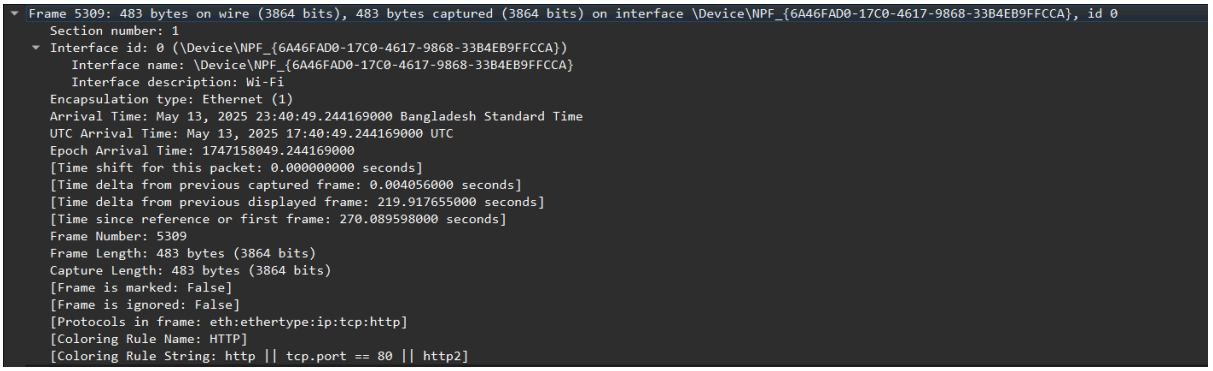
ID: 20301318

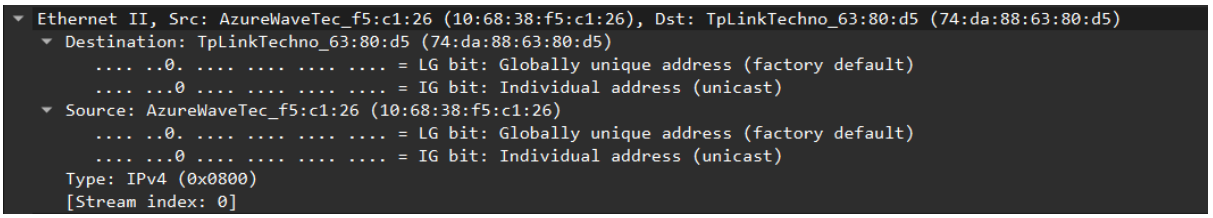
HTTP Request Packet

Layer-1



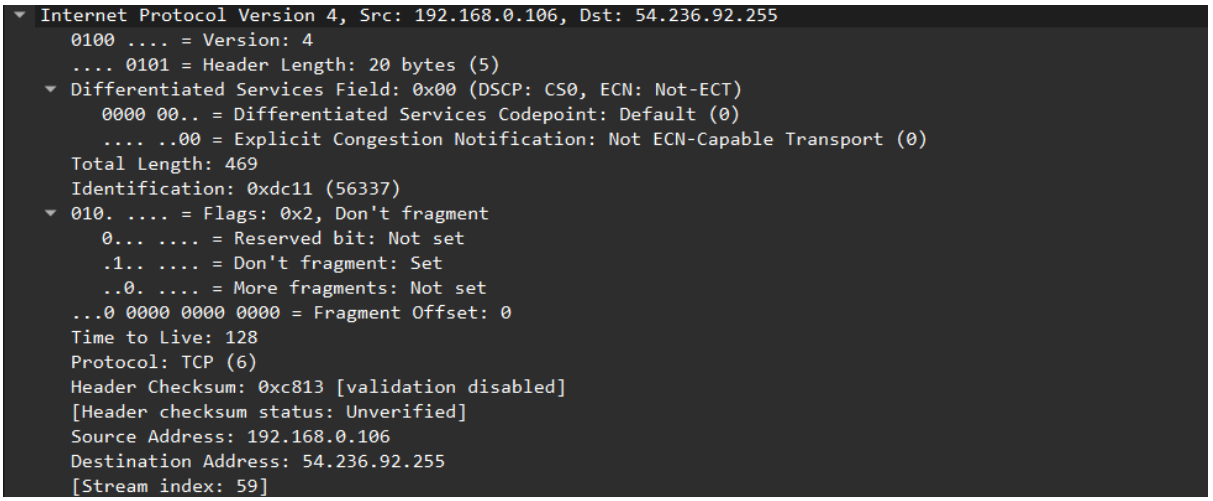
Explanation: Frame is the physical layer header included in the Data Link Layer. This network frame information shows that the frame length is 483 bytes and the frame number is 5309. Moreover, the arrival date and time is also shown here.

Layer-2



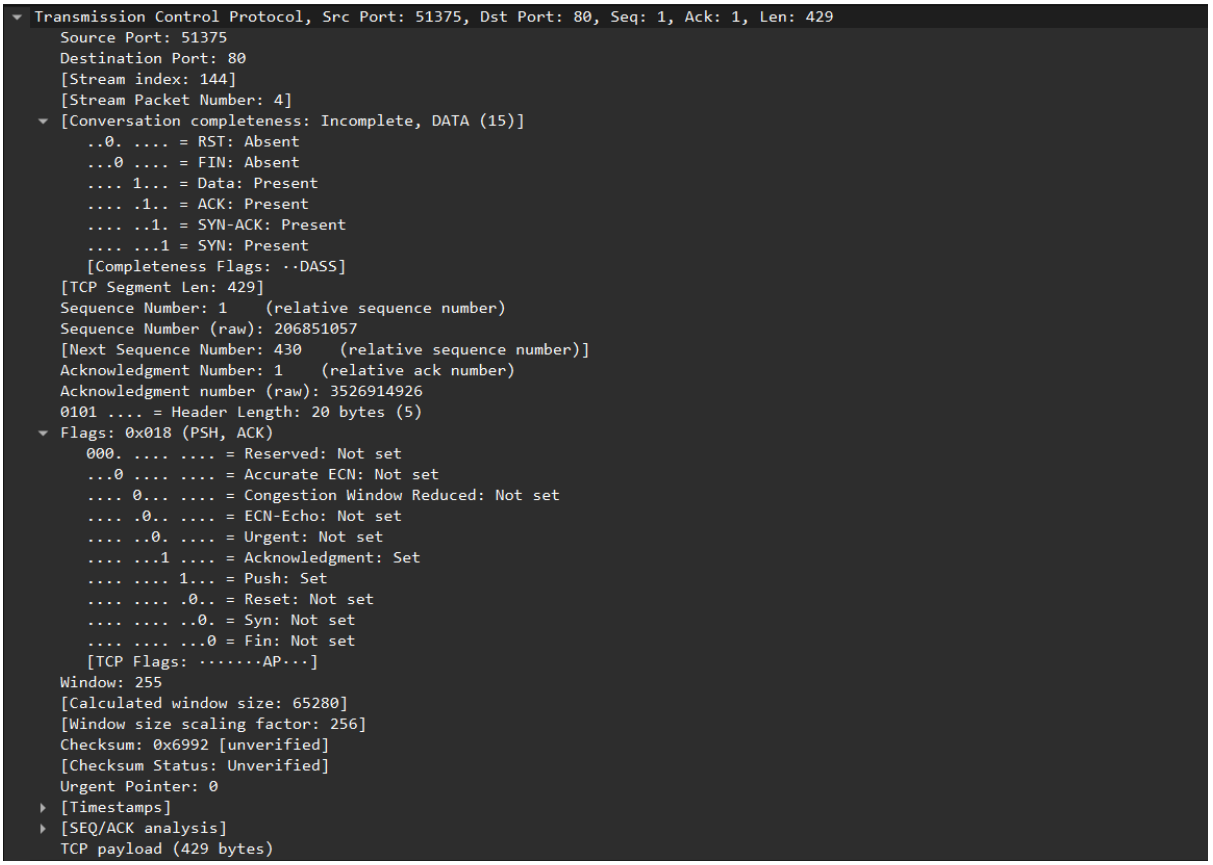
Explanation: This layer is in the Data Link Layer. It contains the type, the source and the destination MAC addresses for node-to-node data transfer as well as error detection.

Layer-3



Explanation: This layer is in the Network Layer that contains the source and destination IP addresses as well as header information for packet routing and addressing. Here the header length is 20 bytes.

Layer-4



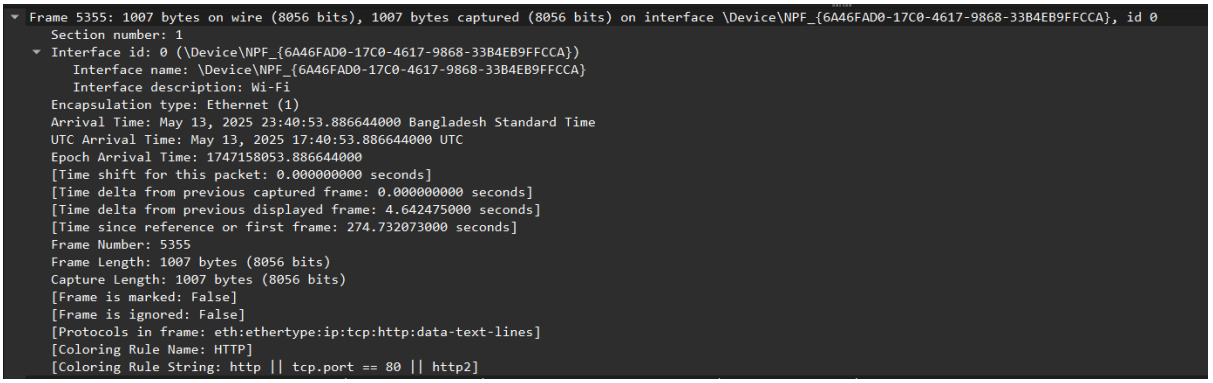
Explanation: This layer is in the Transport Layer. It handles the TCP packets and key components such as source and destination port addresses, sequence number, acknowledgment number, and data segment length. The source port here is 51375 which is dynamically assigned by the client, while the destination port 80 is designated for HTTP traffic on the server. The sequence number or SEQ maintains the correct order of data segments, while the acknowledgment number or ACK allows the receiver to confirm successful data reception. The length or LEN field specifies the size of the transmitted data segment.

Layer-5

Explanation: It is the Application Layer that contains HTTP requests, the GET method (identifies as the request packet). It also contains information regarding headers such as Host, Connection, Upgrade-Insecure-Requests User-Agent, Accept etc. “Connection: keep-alive\r\n” This statement means that the connection is on and that it can send data.

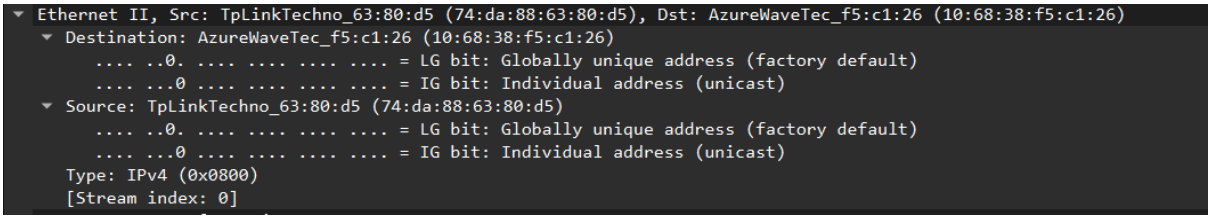
HTTP Response Packet

Layer-1



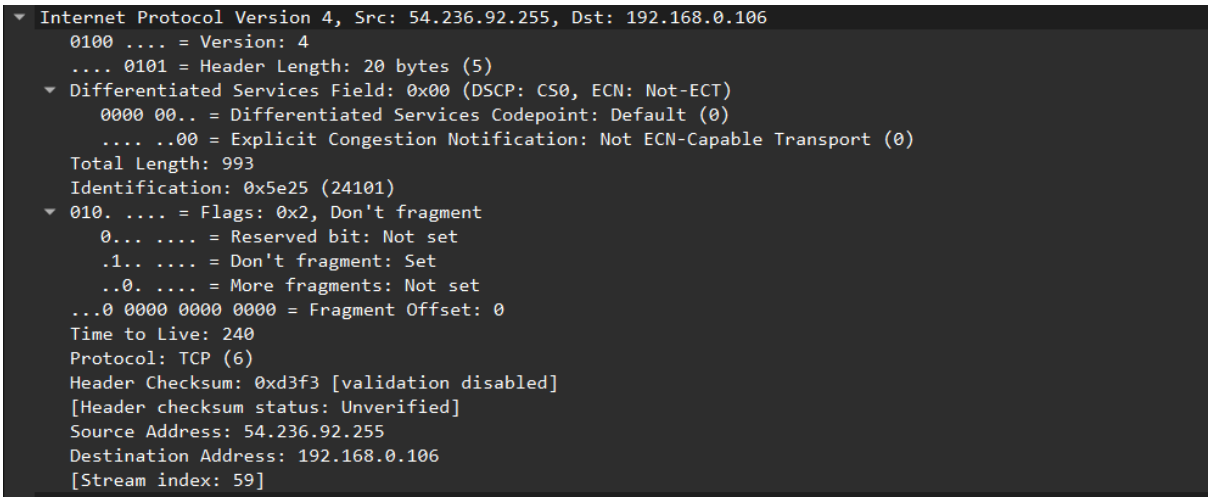
Explanation: Frame is the physical layer header included in the Data Link Layer. This network frame information shows that the frame length is 1007 bytes and the frame number is 5355. Moreover, the arrival date and time is also shown here.

Layer-2



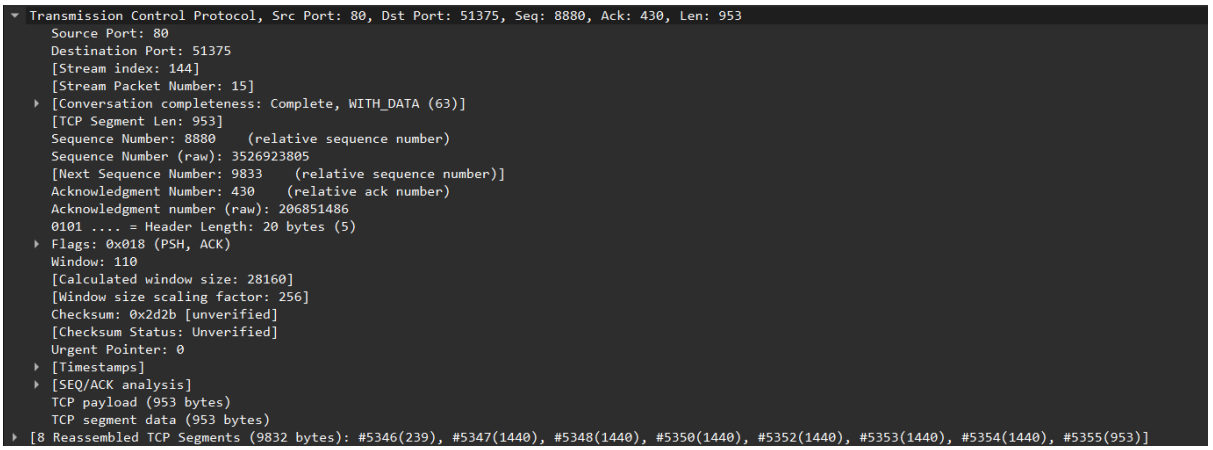
Explanation: This layer is in the Data Link Layer. It contains the type, the source and the destination MAC addresses for node-to-node data transfer as well as error detection.

Layer-3



Explanation: This layer is in the Network Layer that contains the source and destination IP addresses as well as header information for packet routing and addressing. Here the header length is 20 bytes.

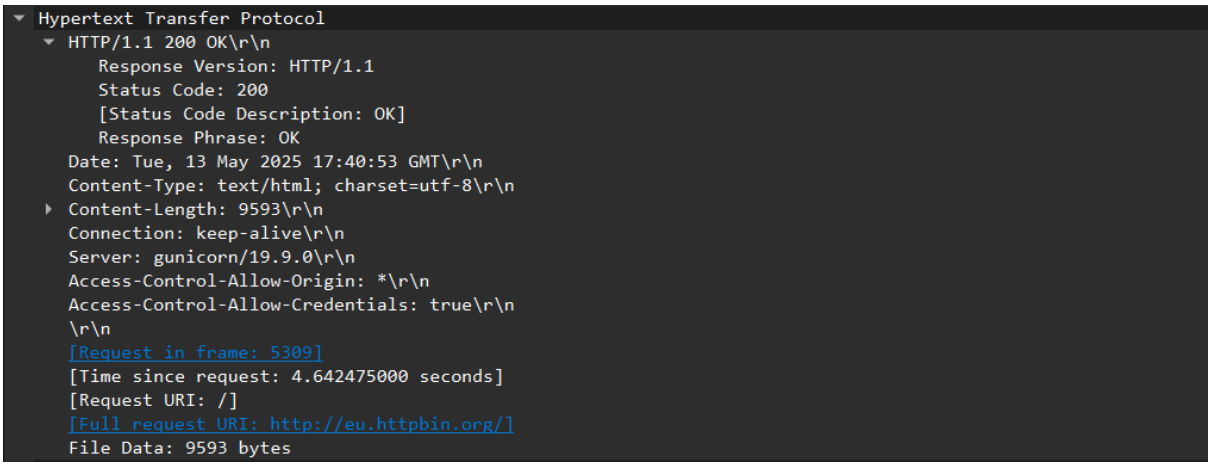
Layer-4



Explanation: This layer is in the Transport Layer. It handles the TCP packets and key components such as source and destination port addresses, sequence number, acknowledgment number, and data segment length. The source port here is 80 which is used by the server to send HTTP responses, while the destination port 51375 is the client's dynamic port number to receive the HTTP response. Port 80 serves as the default port for HTTP communication. The sequence number or SEQ maintains the correct order of

data segments, while the acknowledgment number or ACK allows the receiver to confirm successful data reception. The length or LEN field specifies the size of the transmitted data segment.

Layer-5



Explanation: This is the Application Layer that contains the HTTP version (1.1) and Status code 200 (OK). It also contains HTTP response headers along with the date, content length, last modification date, server name etc.