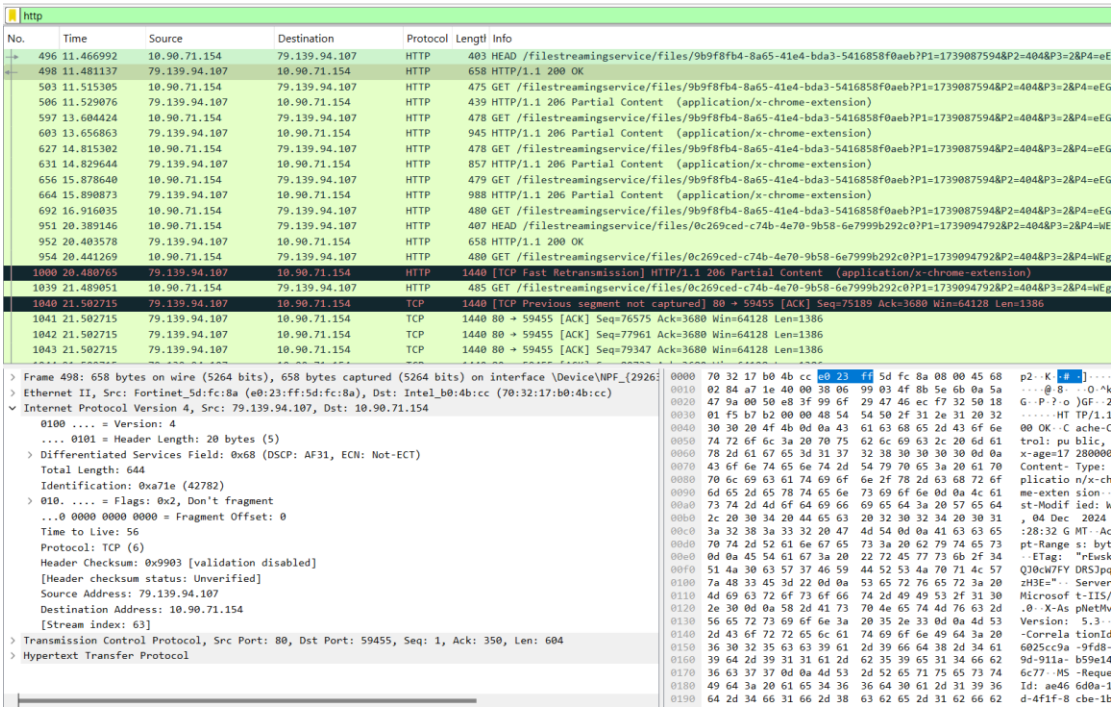
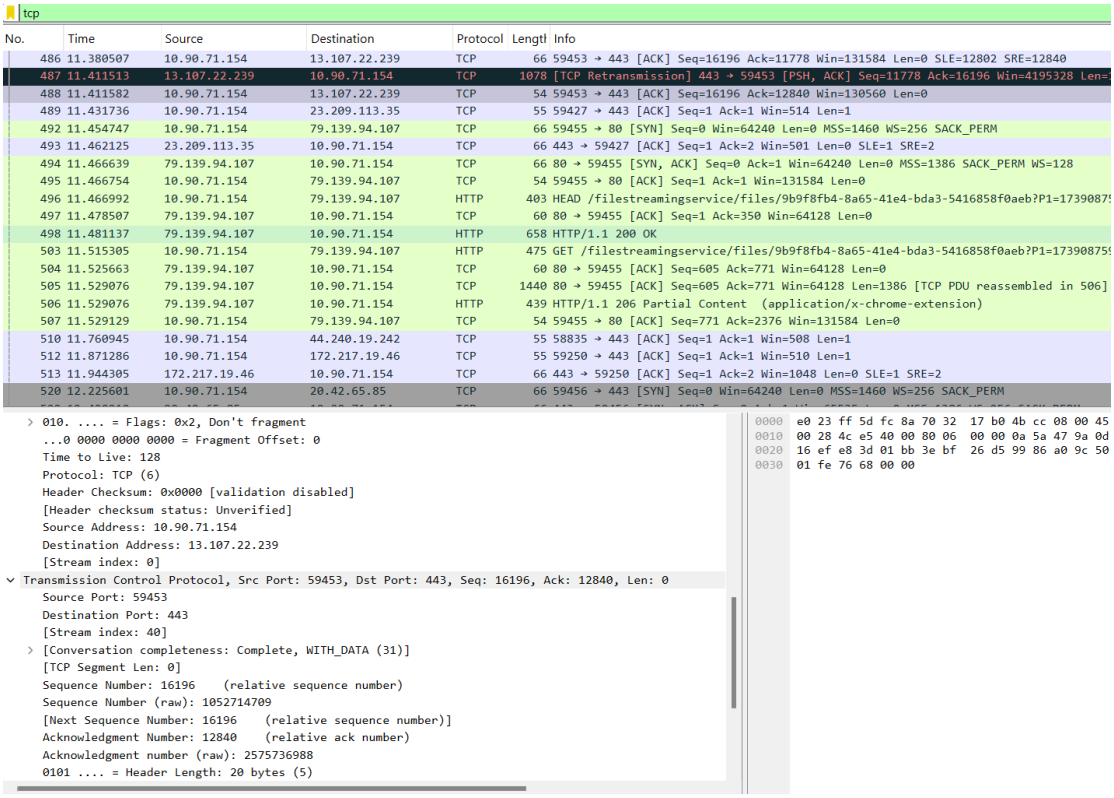
Part.1



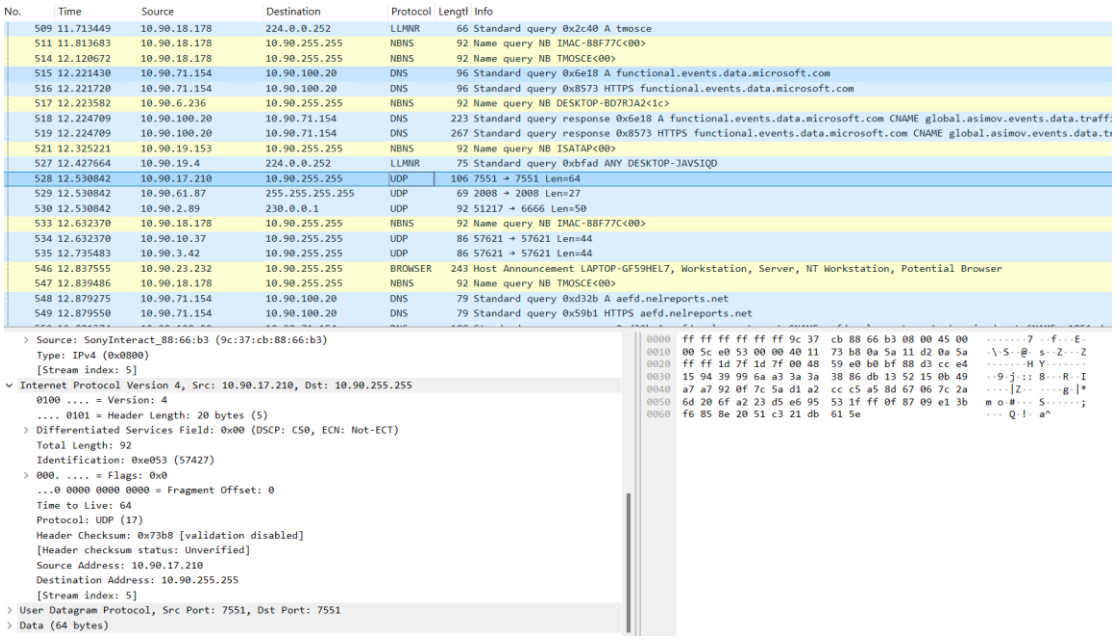
Part.2(task1)



Part.2(task2)

```
▾ [Conversation completeness: Complete, WITH_DATA (31)]
      ..0. .... = RST: Absent
      ...1 .... = FIN: Present
      .... 1... = Data: Present
      .... .1.. = ACK: Present
      .... ..1. = SYN-ACK: Present
      .... ...1 = SYN: Present
      [Completeness Flags: ·FDASS]
```

Part.3



Part.4(task1)

	TCP or UDP	Reasons
Reliability and Connection Establishment	TCP	TCP provides reliable data transfer with error checking
Data Integrity and Ordering	TCP	TCP ensures data is received in the correct order

Part.4(task2)

	TCP	UDP
Use cases	- Web browsing (HTTP/HTTPS) - Email (SMTP, IMAP, POP3) - File transfer (FTP, SFTP) - Remote access (SSH, Telnet) - Secure transactions	- Streaming (audio/video) - Online gaming - VoIP (Voice over IP) - DNS lookups - IoT and sensor data transmission
Performance	- Reliable but slower due to error checking, retransmission, and connection overhead - Ensures data integrity and order	- Faster and lightweight since it lacks reliability mechanisms - No retransmissions or acknowledgments, reducing latency