

Online Gaming

Lab2

3. IP Header

Version	Header Length	Service Type	Total Length
Identification		Flags	Fragment Offset
TTL	Protocol	Header Checksum	
Source IP Address			
Destination IP Address			
Options			Padding

Internet Protocol Version 4, Src: 149.153.106.120, Dst: 149.153.159.101

0100 = Version: 4
.... 0101 = Header Length: 20 bytes (5)
➤ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
Total Length: 846
Identification: 0x7fe5 (32741)
➤ Flags: 0x4000, Don't fragment
Fragment offset: 0
Time to live: 128
Protocol: TCP (6)
Header checksum: 0x0000 [validation disabled]
[Header checksum status: Unverified]
Source: 149.153.106.120
Destination: 149.153.159.101

4. Explain packet fields

- Time
 - o Time took to retrieve and capture the packet.
 - o Used to see the retrieval time.
- Source
 - o The IP address from which the packet was sent.
 - o Used to identify the source of the packet.
- Destination
 - o The IP address that will receive the packet.
 - o Used to identify where to send the packet.
- Protocol
 - o The protocol is the set of rules that the IP address follows.
 - o Used so that the packet can follow the protocol of the network.
- Length
 - o The size of the packet.
- Info
 - o Some information about the contents of the packet.

5. Difference between packets

- Each packet is numbered.
- It uses protocols that differ from the packets I captured.
- The IP address that it uses are internal testing IP's.
- It now has information for the fragment field.
- There is a server ping that requests to see if the server is active and the server reply's with an answer to this request.

6. Technical/Design Highlights of Games.

6.1. Dark Souls

- Creates a new technical system that is known and replicated for its difficult combat system.

6.2. Genshin Impact

- The layout of the open world is very innovative and looks graphically amazing. As well as this it incorporates a 'gacha' mechanic, for obtaining in-game items and characters, into an open world RPG game, which is relatively new based on the games scale. This seems like a very successful free to play model.

6.3. The Witcher 3: The Wild Hunt

- Is extremely good in many ways. The main thing that it is known for is its amazing and large open-world, the quest system and combat with enemies.