

Project 2

Trace.pcapng

Packet 27

Q1

144.39.49.161 it does not match.

Q2

UDP

Q3

20 in the header 34 in the payload, everything after the ip header is the payload

Q4

no, the more fragments flag is 0 and the fragment offset is 0

Q5

Identification and Header Checksum

Q6

all other fields besides Identification and Header Checksum stay the same, except for Time to Live increases every few packets most of the fields are related to the protocol being used and they must stay constant otherwise the protocol would change, identification must change because each packet must have a unique ID and checksum changes whenever anything in the packet changes

Q7

it appears to be semi random, but avoids repetition

Packet 43

Q8

ID: 0 TTL: 255

Q9

yes they are unchanged the id is always 0 because they are generated by the nearest router and dont need to be forwarded, the TTL is 255 because that is the maximum value

Trace2.pcapng

Packet 19

Q10

yes it has been fragmented

Packet 17

Q11

the “More Fragments” flag is set we can tell its the first because the Fragment offset is 0 3540 total across the three packets

Packet 18

Q12

its not the first because the fragment offset is not 0 there are more because the more fragments flag is set

Packet 19

Q13

no because the more fragments flag is not set

Q14

the flags and fragment offset change, as well as the total length