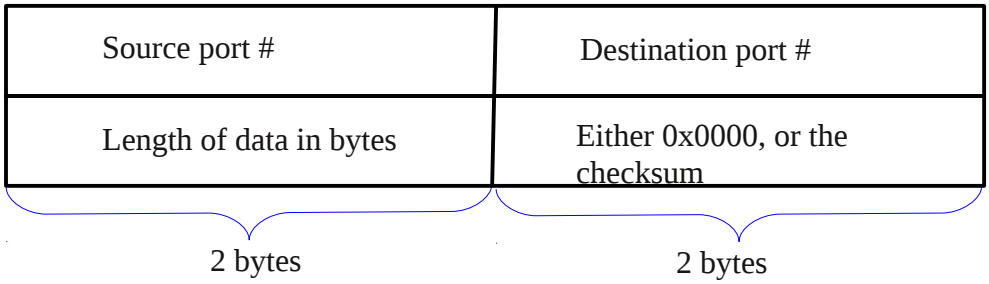
A UDP datagram - RFC 768
http://www.ietf.org/rfc/rfc768.txt

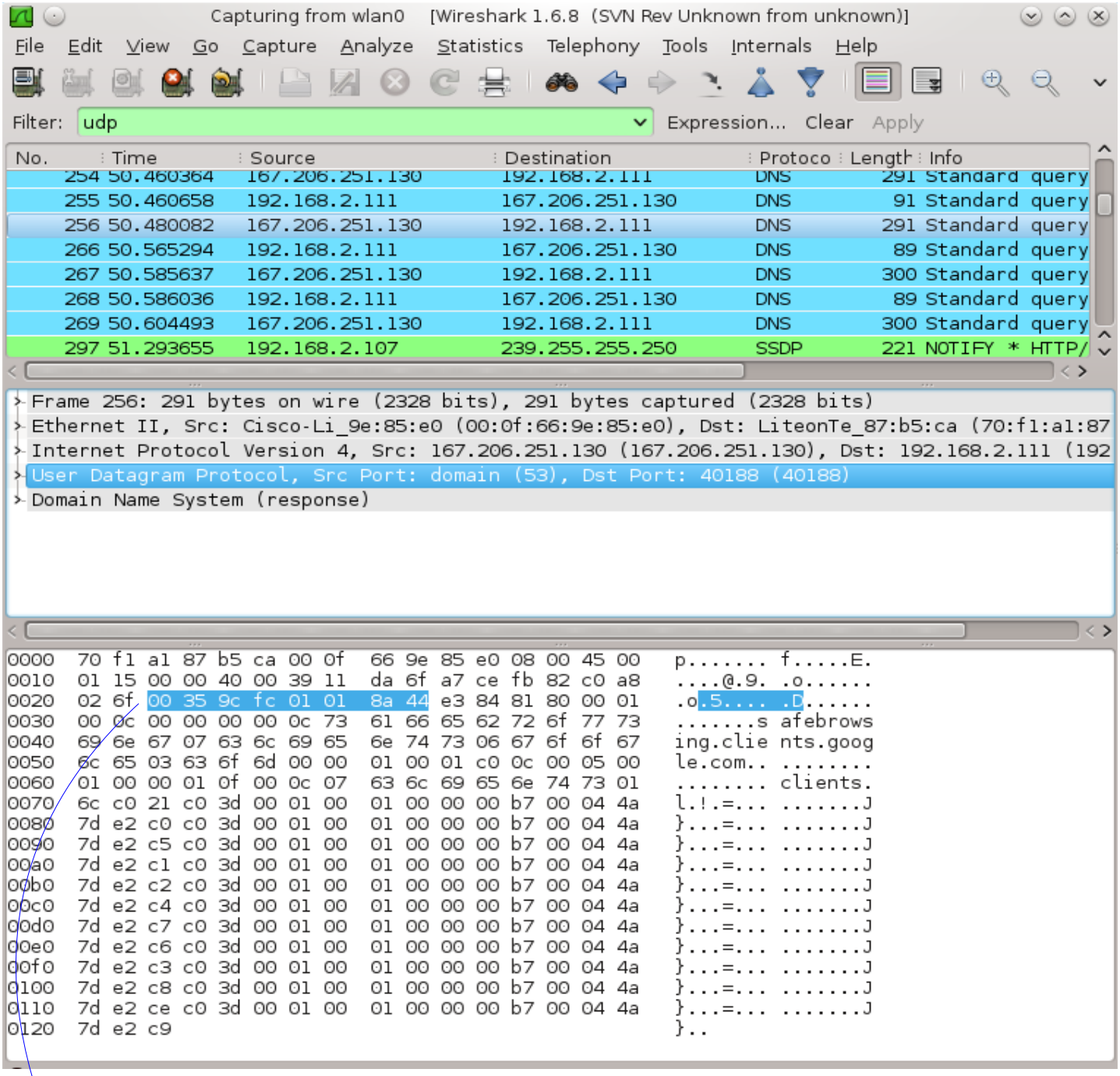
The UDP header attached to a UDP datagram has a definite structure as shown in the diagram below.



The UDP header is always 8 bytes, with structure as shown above. Remember that a hex # is 4 bits, so 2 hex numbers will constitute a byte, and 4 hex numbers will be 2 bytes. So in a UDP header, each of the source port, destination port, Length, and checksum are all 2 bytes long. The checksum is not required to be calculated – if it is not calculated, this field is 0x0000.

See separate slide on checksum calculation.

The following wireshark screenshot shows a UDP packet captured from the wire. Its source port is 0x0035, Destination port is 0x9cfc, total length is 0x0101, and checksum is 0x8a44. In other words, the total data length (without UDP header) is 0x0101 bytes = (257 decimal) bytes; the source port (in decimal) is 53, destination port (in decimal) is 40188.



Source port # 00 35	Destination port # 9c fc
Length of data in bytes 01 01	Checksum 8a 44

2 bytes 2 bytes