

CMPSCI 453

HW8, Wireshark Lab 4

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1 Lab

1. There are 4 fields. Source Port, Destination Port, Length, Checksum

```
1 0.000000 192.168.1.102 192.168.1.104 SNMP 92 get-request 1.3.6.1.4.1.11.2.3.9.4.2.1.2.2.2.1.0
User Datagram Protocol, Src Port: 4334, Dst Port: 161
Source Port: 4334
Destination Port: 161
Length: 58
Checksum: 0x65f8 [unverified]
[Checksum Status: Unverified]
[Stream index: 0]
```

2. Each field is 2 Bytes long. This is seen by clicking on the field in the packet summary window.
3. The length field refers to the length of the header + payload, in this case $8B + 50B = 58B$.
4. The maximum length of a UDP packet is 65535 Bytes ($2^{16} - 1$) since the length field is a 16 bit unsigned integer. The theoretical maximum number of bytes in a UDP payload is $65535B - 8B = 65527B$. Since UDP packets are encapsulated in a IP datagram, the true max payload length is $65535B - 20B - 8B = 65507B$.
5. The largest port number is 65535.
6. The protocol number of UDP is 17. This is 0x11 in hex.
7. The destination port in packet 1 is the source port in packet 2. The source port in packet 1 is the destination port in packet 2.

```
2 0.016960 192.168.1.104 192.168.1.102 SNMP 93 get-response 1.3.6.1.4.1.11.2.3.9.4.2.1.2.2.2.1.0
User Datagram Protocol, Src Port: 161, Dst Port: 4334
Source Port: 161
Destination Port: 4334
Length: 59
Checksum: 0x53f2 [unverified]
[Checksum Status: Unverified]
[Stream index: 0]
```