

PART 1

No.	Time	Source	Destination	Protocol	Length	Info
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
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
11	3.016971	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
12	3.034127	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
13	6.033719	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
14	6.050808	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
15	9.050463	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
16	9.067492	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
17	12.067214	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

> Frame 1: 92 bytes on wire (736 bits), 92 bytes captured (736 bits)
 > Ethernet II, Src: Dell_4f:36:23 (00:08:74:4f:36:23), Dst: HewlettP_61:eb:ed (00:30:c1:61:eb:ed)
 > Internet Protocol Version 4, Src: 192.168.1.102, Dst: 192.168.1.104
 > 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]
 > Simple Network Management Protocol

Source Port (udp.srcport), 2 bytes Packets: 73 · Displayed: 21 (28.8%) Profile: Default

1. There are 4 fields in the header, which are Source Port, Destination port, Length and Checksum.
2. Each field is 2 bytes.
3. The value in the Length field is the length of the 4 header fields summed, plus 42 encapsulated data bytes.
4. The maximum number of bytes that can be included in a UDP payload is $2^{16}-1-(\text{\# header bytes})$.
 $2^{16}-1-8 = 65536-9 = 65527$ bytes.
5. The largest possible Source Port number is $2^{16}-1=65535$.
6. The protocol number for UDP is 17, which is 11 in hex.

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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
11	3.016971	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
12	3.034127	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
13	6.033719	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
14	6.050808	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
15	9.050463	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
16	9.067492	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
17	12.067214	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

> Frame 1: 92 bytes on wire (736 bits), 92 bytes captured (736 bits)
 > Ethernet II, Src: Dell_4f:36:23 (00:08:74:4f:36:23), Dst: HewlettP_61:eb:ed (00:30:c1:61:eb:ed)
 > Internet Protocol Version 4, Src: 192.168.1.102, Dst: 192.168.1.104
 > 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]
 > Simple Network Management Protocol

Source Port (udp.srcport), 2 bytes Packets: 73 · Displayed: 21 (28.8%) Profile: Default

No.	Time	Source	Destination	Protocol	Length	Info
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
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
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17	12.067214	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

> Frame 2: 93 bytes on wire (744 bits), 93 bytes captured (744 bits)
 > Ethernet II, Src: HewlettP_61:eb:ed (00:30:c1:61:eb:ed), Dst: Dell_4f:36:23 (00:08:74:4f:36:23)
 > Internet Protocol Version 4, Src: 192.168.1.104, Dst: 192.168.1.102
 > 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]
 > Simple Network Management Protocol

Time to live (ip.ttl), 1 byte Packets: 73 · Displayed: 21 (28.8%) Profile: Default

7. Between the get-request and get-response UDPs, the Destination Port of one is the Source Port of the other. (RequestDestPort=ResponseSourcePort & ReuestSourcePort=ResponseDestPort).