

: Advanced Computer Networks Assignments #2

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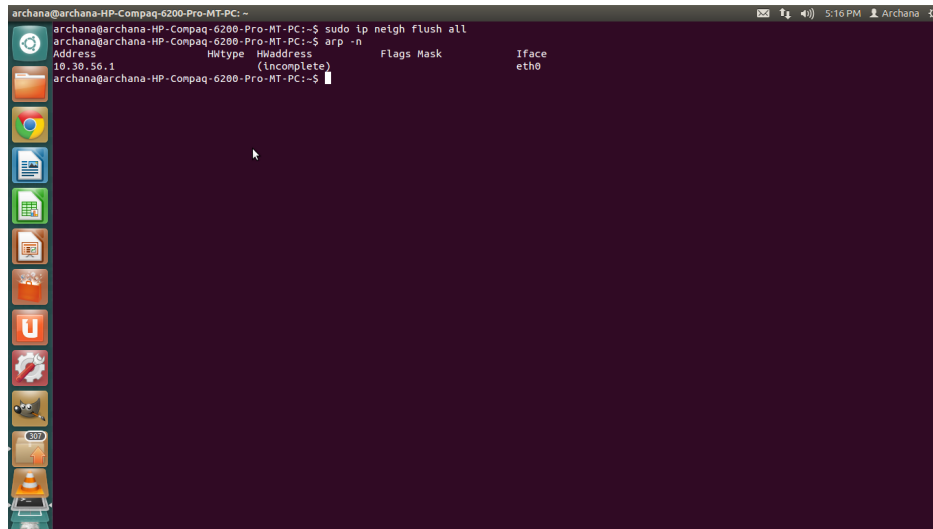
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Problem 1

To flush the arp table :

sudo ip neigh flush all

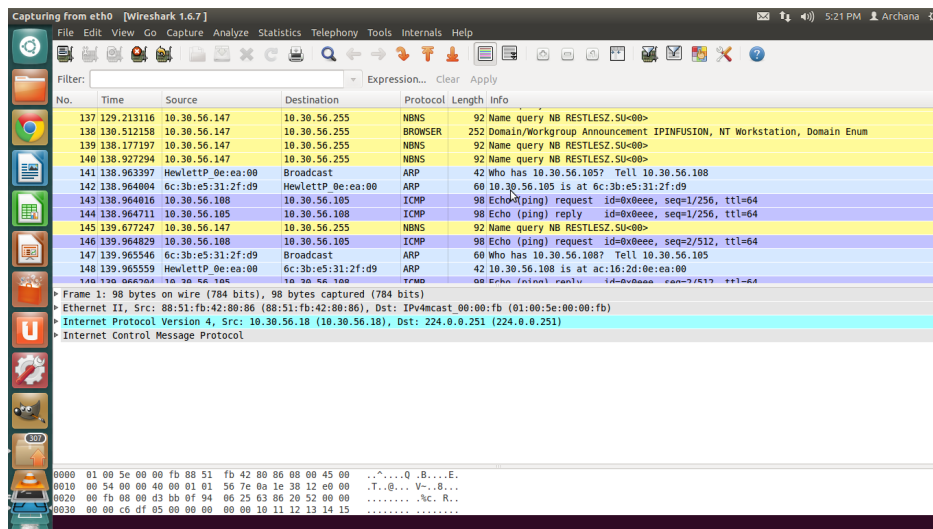


For non promiscuous mode:

capture-options-uncheck the promiscuous mode

To capture the sniffer packets IP address :

ping 10.30.56.105



To capture the sniffer packets of the Ip address 4.2.2.1 :

ping 4.2.2.1

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	10.30.56.108	4.2.2.1	ICMP	98	Echo (ping) request id=0xf07, seq=110/29096, ttl=64
2	0.194360	4.2.2.1	10.30.56.108	ICMP	98	Echo (ping) reply id=0xf07, seq=110/29096, ttl=55
3	0.539363	10.30.56.117	224.0.0.1	ICMP	98	Echo (ping) request id=0x11af, seq=130/33288, ttl=1
4	1.000286	10.30.56.108	4.2.2.1	ICMP	98	Echo (ping) request id=0xf07, seq=117/29952, ttl=64
5	1.195021	4.2.2.1	10.30.56.108	ICMP	98	Echo (ping) reply id=0xf07, seq=117/29952, ttl=55
6	1.376844	10.30.56.108	10.30.59.255	NBNS	92	Name query NB WORKGROUP<id>
7	1.377517	10.30.56.104	10.30.56.108	NBNS	104	Name query response NB 10.30.56.104
8	1.547526	10.30.56.117	224.0.0.1	ICMP	98	Echo (ping) request id=0x11af, seq=131/33536, ttl=1
9	2.000947	10.30.56.108	4.2.2.1	ICMP	98	Echo (ping) request id=0xf07, seq=118/30208, ttl=64
10	2.209616	4.2.2.1	10.30.56.108	ICMP	98	Echo (ping) reply id=0xf07, seq=118/30208, ttl=55
11	2.505328	10.30.56.147	10.30.56.255	NBNS	92	Name query NB RESTLESZ.SU<0>
12	2.555363	10.30.56.117	224.0.0.1	ICMP	98	Echo (ping) request id=0x11af, seq=132/33792, ttl=1
13	3.001533	10.30.56.108	4.2.2.1	ICMP	98	Echo (ping) request id=0xf07, seq=119/30464, ttl=64

Frame 1: 98 bytes on wire (784 bits), 98 bytes captured (784 bits) on Ethernet II, Src: HewlettP_0e:ea:00 (ac:16:2d:0e:ea:00), Dst: Cisco_f2:bc:c9 (00:1f:9d:f2:bc:c9)
 Internet Protocol Version 4, Src: 10.30.56.108 (10.30.56.108), Dst: 4.2.2.1 (4.2.2.1)
 Internet Control Message Protocol

To obtain the mac address of a multi cast address :
ping 224.0.0.1

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	10.30.56.108	224.0.0.1	ICMP	98	Echo (ping) request id=0x1261, seq=41/10496, ttl=1
2	0.055624	10.30.56.147	10.30.56.255	NBNS	92	Name query NB RESTLESZ.SU<0>
3	0.303129	10.30.56.115	224.0.0.1	ICMP	98	Echo (ping) request id=0x122b, seq=648/34818, ttl=1
4	0.470130	10.30.56.113	224.0.0.1	ICMP	98	Echo (ping) request id=0x1101, seq=11/2016, ttl=1
5	0.805137	10.30.56.147	10.30.56.255	NBNS	92	Name query NB RESTLESZ.SU<0>
6	0.919515	6c:3b:e5:3e:0a:44	Broadcast	ARP	60	Who has 10.30.56.17 Tell 10.30.56.124
7	1.000057	10.30.56.108	224.0.0.1	ICMP	98	Echo (ping) request id=0x1261, seq=42/10752, ttl=1
8	1.311047	10.30.56.115	224.0.0.1	ICMP	98	Echo (ping) request id=0x122b, seq=649/35074, ttl=1
9	1.555281	10.30.56.147	10.30.56.255	NBNS	92	Name query NB RESTLESZ.SU<0>
10	2.000062	10.30.56.108	224.0.0.1	ICMP	98	Echo (ping) request id=0x1261, seq=43/11008, ttl=1
11	2.318955	10.30.56.115	224.0.0.1	ICMP	98	Echo (ping) request id=0x122b, seq=650/35330, ttl=1
12	3.000057	10.30.56.108	224.0.0.1	ICMP	98	Echo (ping) request id=0x1261, seq=44/11264, ttl=1
13	3.326994	10.30.56.115	224.0.0.1	ICMP	98	Echo (ping) request id=0x122b, seq=651/35586, ttl=1

Frame 1: 98 bytes on wire (784 bits), 98 bytes captured (784 bits) on Ethernet II, Src: HewlettP_0e:ea:00 (ac:16:2d:0e:ea:00), Dst: IPv4mcast 00:00:01 (01:00:5e:00:00:01)
 Internet Protocol Version 4, Src: 10.30.56.108 (10.30.56.108), Dst: 224.0.0.1 (224.0.0.1)
 Internet Control Message Protocol

The broadcast address is :
ff:ff:ff:ff:ff:ff
The multicast address is :
01:00:5e:00:00:01