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**Summary:** ARP Functionallity. Receiving a MAC address.

Make sure a MAC address is recieved from a known IP address.

Setup Description:

PC --- Wi-Fi router --- Mobile phone

PC: 192.168.1.38

Mobile Phone: 192.168.1.130

Steps(with ER):

1. Clean arp table

Arp -d <IP-address>

ER: verify that arp table is empty

1. Run Wireshark

ER: Wireshark runs properly

1. Run ping from PC to Mobile phone

ER: ping is running

1. Verify that ARP table has updated with arp –a command

ER: arp-table updating by getting arp-reply

1. Verify MAC address is recieved from a known IP address.

ER: There is a recieved package in Wireshark with a MAC address of the mobile phone

**ARP Test Case**

Preconditions:

1. PC (192.168.1.38) connected via wi-fi through router to the Mobile phone (192.168.1.130)

Steps:

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| --- | --- | --- |
| 1 | Clean arp table using arp -d | Arp table is empty |
| 2 | Run Wireshark | Wireshark runs properly |
| 3 | Run ping from PC to Mobile phone using ping 192.168.1.130 | Ping runs properly  PING 192.168.1.130 (192.168.1.130) 56(84) bytes of data.  64 bytes from 192.168.1.130: icmp\_seq=1 ttl=64 time=338ms  64 bytes from 192.168.1.130: icmp\_seq=2 ttl=64 time=55.0ms  64 bytes from 192.168.1.130: icmp\_seq=3 ttl=64 time=75.8ms  64 bytes from 192.168.1.130: icmp\_seq=4 ttl=64 time=100ms |
| 4 | Verify that ARP table has updated with arp –a command | Arp table has rows for the Wi-Fi router and the mobile phone again  Router.asus.com (192.168.1.1) at bc:ee:7b:54:83:df [ether] on enp0s3  M2101K6G (192.168.1.130) at a4:55:90:18:ea:96 [ether] on enp0s3 |
| 5 | Verify MAC address is recieved from a known IP address. | The arp package seen in Wireshark confirms the MAC address of the mobile phone  192.168.1.130 is at a4:55:90:18:ea:96 |