

CENG334

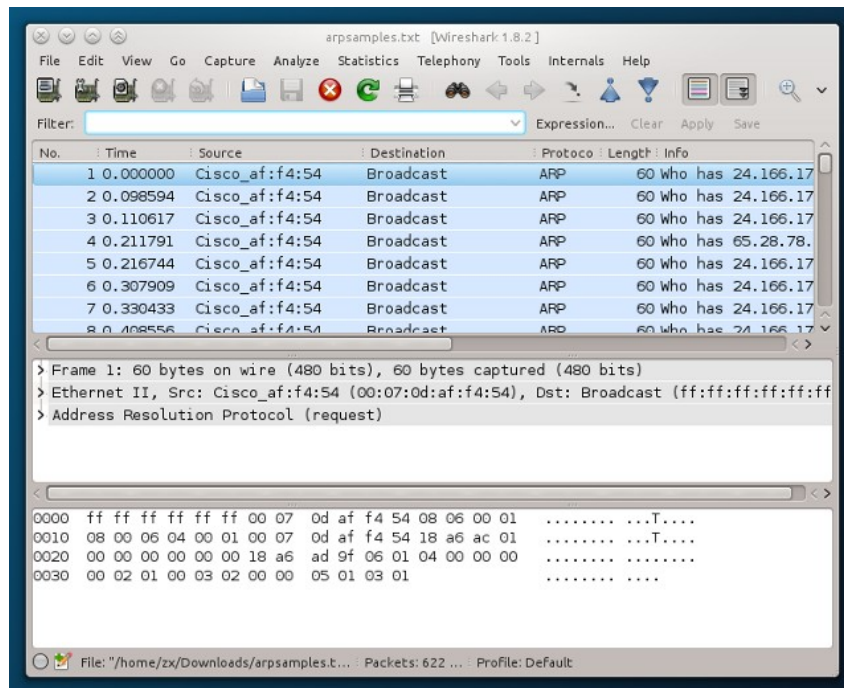
COMPUTER NETWORKS

LABORATORY MANUAL VI

We will study ARP protocol this week. Below is a demonstration of an ARP package structure:

	0 - 7	8 - 15
0	Hardware type	
16	Protocol type	
32	Hardware addr length	Protocol addr length
48	Operation	
64	Sender MAC address	
80	Sender MAC address (cont'd)	
96	Sender MAC address (cont'd)	
112	Sender IP address	
128	Sender IP address (cont'd)	
144	Target MAC address	
160	Target MAC address (cont'd)	
176	Target MAC address (cont'd)	
192	Target IP address	
208	Target IP address (cont'd)	

The first task for this weeks laboratory involves observing an ARP package via Wireshark. Download the sample capture file from the course web page and load it into Wireshark. Observe how the ARP packages are organized.



To view the computers ARP cache, we can use "arp" command in terminal. Running arp will display a table, which lists the kernels cache of previously established IPv4 network connections. For example, run arp command now. Your output should be similar to this:

```
$ arp
Address          HWtype  HWaddress          Flags Mask          Iface
95.183.182.1     ether   c0:91:34:f9:05:00  C                   eth0
```

Now ping a computer (your laboratory partner's for example) and run arp again. What difference do you see now?

Check the manpages of arp command to learn how we can use arp to define new arp rules and remove existing ones.