

EXPERIMENT-9

Question 9:

To construct simple LAN and understand the concept and operation of Address Resolution Protocol (ARP)

Observation:

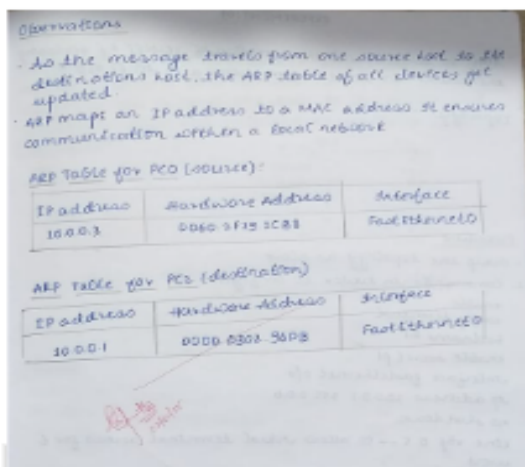
EXPERIMENT 08

Aim: To construct simple LAN and understand the concept and operation of Address Resolution Protocol (ARP)

Topology

Procedure

1. Create a topology of 1 PC and a server
2. IP addresses are assigned to all
3. Connect them through a switch
4. Use the packet tool to click on a PC to see the ARP table
5. Command in CLI for the same is `arp -a`
6. Initially ARP table is empty
7. Use in CLI of switch, the command `show mac address-table` can be given on every transaction to see how the switch learns from transactions and build the address table.
8. Use the capture button in the stimulation panel to go step by step so that the changes in ARP can be clearly noted.
9. Observe the switch as well the nodes update the ARP table as and when a new communication starts



Screenshot of the topology:



Screenshot of the output:

```
Switch>show mac address-table
```

Mac Address Table

Vlan	Mac Address	Type	Ports
1	000b.bed0.714b	DYNAMIC	Fa2/1
1	0060.3e41.e693	DYNAMIC	Fa1/1
1	0090.2ba4.59e4	DYNAMIC	Fa0/1