

WEEK 8

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

OBSERVATION:

Aim:- To construct simple LAN & understand the concept & operation of Address Resolution Protocol.

Topology

```
graph TD; Switch[Switch PT Sub. 14-0] --- Server[Server PT Sub. 0 10.0.0.1]; Switch --- PC0[PC-PT PC-0 10.0.0.2]; Switch --- PC1[PC-PT PC-1 10.0.0.1]; Switch --- PC2[PC-PT PC-2 10.0.0.2];
```

Procedure

- Setup topology as shown above
- Select the inspect element option & click on each server widget & select ARP table after setting IP address for each device
- Select PC0 & in the desktop CLI mode, PC > ping 10.0.0.1 (server)
- In the simulator on mode, you can see the packet request acknowledge agent from PC0 to server step by step by clicking capture button every time.
- Similarly click PC-PT-PC1 & in desktop and PC > ping 10.0.0.2 (R2)
- To check the arp address for each device click on each device PC > arp -a.

Output

PC0:

PC's comp - a	Internet Address	Physical Address	Type
	10.0.0.1	0003 E7 9A 9A C	dynamic

PC1:

PC's comp - a	Internet Address	Physical Address	Type
	10.0.0.2	0001 C9 0E B6 7C	dynamic

PC2:

PC's comp - a	Internet Address	Physical Address	Type
	10.0.0.3	00 D0 FF 1C 75 2A	dynamic

Observation:

On each installation of capture, respective ARP address get added.

Source

IP Address	Hardware Address	Interface
10.0.0.2	00E0 B057 1B0A	Ethernet0

PC0

IP Address	Hardware Address	Interface
10.0.0.1	0003 E7 9A 9A C	Ethernet0

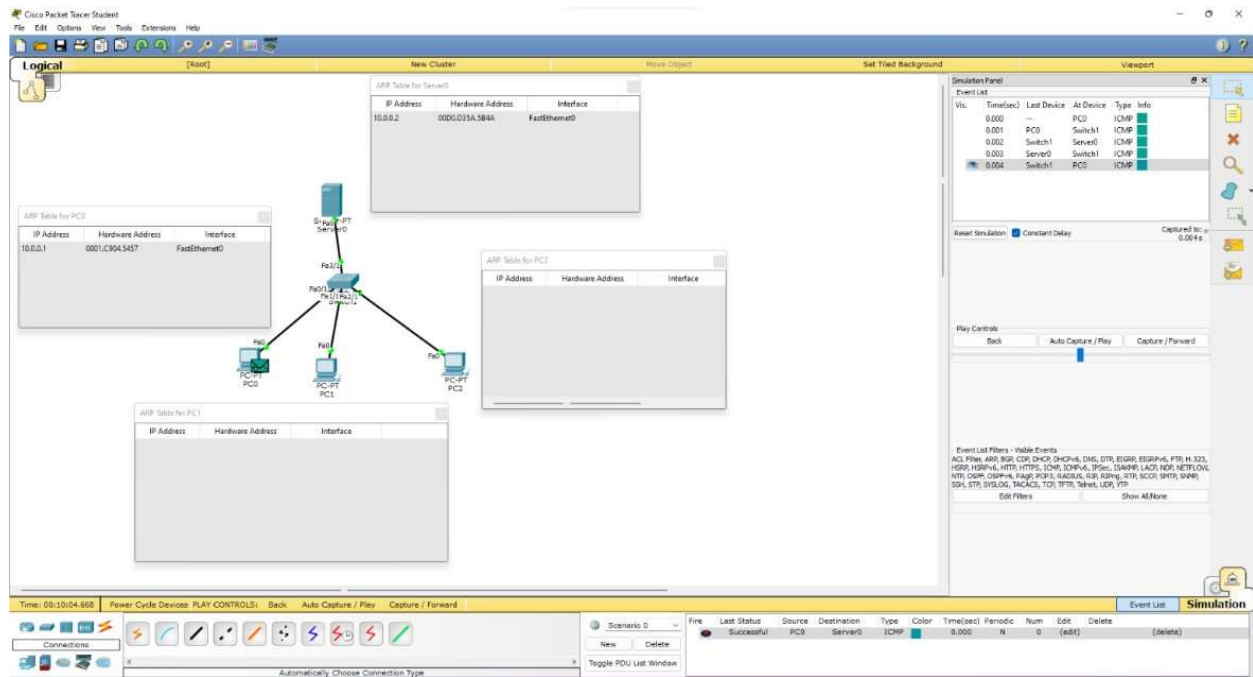
PC-1

IP Address	Hardware Address	Interface
10.0.0.2	0001 C9 0E B6 7C	Ethernet0

PC-2

IP Address	Hardware Address	Interface
10.0.0.3	00 D0 FF 1C 75 2A	Ethernet0

TOPOLOGY:



OUTPUT:

