

CSA0734-COMPUTER NETWORKS FOR SERVER MANAGEMENT

NAME G.Shiva Shankar reddy

REG. NO.: 192211486

EXPERIMENT 8

Data Link Layer Traffic Simulation using Packet Tracer Analysis of ARP

Aim:

Traffic simulation of Data link layer using Packet Tracer.

Tools Required:

- 1.End device - They are the devices through which we can pass message from one device to another and they are interconnected.
- 2.Switch/Hub - Interface Between two devices.
- 3.Cable - Used to connect two devices.
- 4.Server – Manages the end devices.

Procedure:

STEP 1: Click on end devices, select generic Pc's drag and drop it on the window. Click on SWITCH drag and drop it on the window.

STEP 2: Select the straight through cable and connect all end device to switch. Assign the IP address for all end devices. (Double click the end device Select → desktop → IP configuration static)

STEP 3: Now set the IP address to Host A (192.168.1.1) in static mode. Similarly set IP address for Host B (192.168.1.2) and Host C (192.168.1.3) and other Hosts and server.

STEP 4: To view the IP address, give ipconfig command in command prompt. Using

ping command, we can establish communication between two host devices.

STEP 5: Now display the packet transmission in simulation mode.

Data Link Layer Traffic Simulation:

The screenshot displays the Packet Tracer interface. The main workspace shows a network topology with a central Hub (Hub-PT Hub0) connected to three devices: Server-PT Server0, PC-PT PC0, and PC-PT PC1. The interface includes a top toolbar with 'Logical' and 'Physical' tabs, a right-hand 'Simulation Panel' with an 'Event List' and 'Play Controls', and a bottom toolbar with 'PLAY CONTROLS' and a 'Scenario 0' dropdown.

The 'Event List' on the right shows a list of events with columns for 'Vis.', 'Time(sec)', and 'Last Device'. The events are as follows:

Vis.	Time(sec)	Last Device
	1232.534	Hub0
	1232.534	-
	1232.535	PC0
	1232.536	Hub0
	1232.536	Hub0
	1232.537	PC1
Visible	1232.538	Hub0
Visible	1232.538	Hub0

The bottom toolbar shows the 'PLAY CONTROLS' section with a 'Time' display at 00:29:19.338 and a 'PLAY CONTROLS' button. The 'Scenario 0' dropdown is set to 'Scenario 0'. The 'Event List' is expanded, showing a list of events with columns for 'Fire', 'Last Status', 'Source', 'Destination', 'Type', 'Color', 'Time(sec)', 'Periodic', 'Num', 'Edit', and 'Delete'. The events are as follows:

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	Server0	PC0	ICMP		0.000	N	0	(edit)	(delete)
	Successful	Server0	PC1	ICMP		616.305	N	1	(edit)	(delete)
	Successful	PC0	PC1	ICMP		1232.530	N	2	(edit)	(delete)

Result:

Traffic simulation of Data link layer using Packet Tracer has been done successfully.