Date:

EXPERIMENT-8

DATA LINK LAYER TRAFFIC SIMULATION USING PACKET TRACER

ANALYSIS OF ARP

Aim: To implement Data Link Layer Traffic Simulation using Packet Tracer Analysis of ARP.

Software / Apparatus required: Packet Tracer / End devices, Switches, connectors.

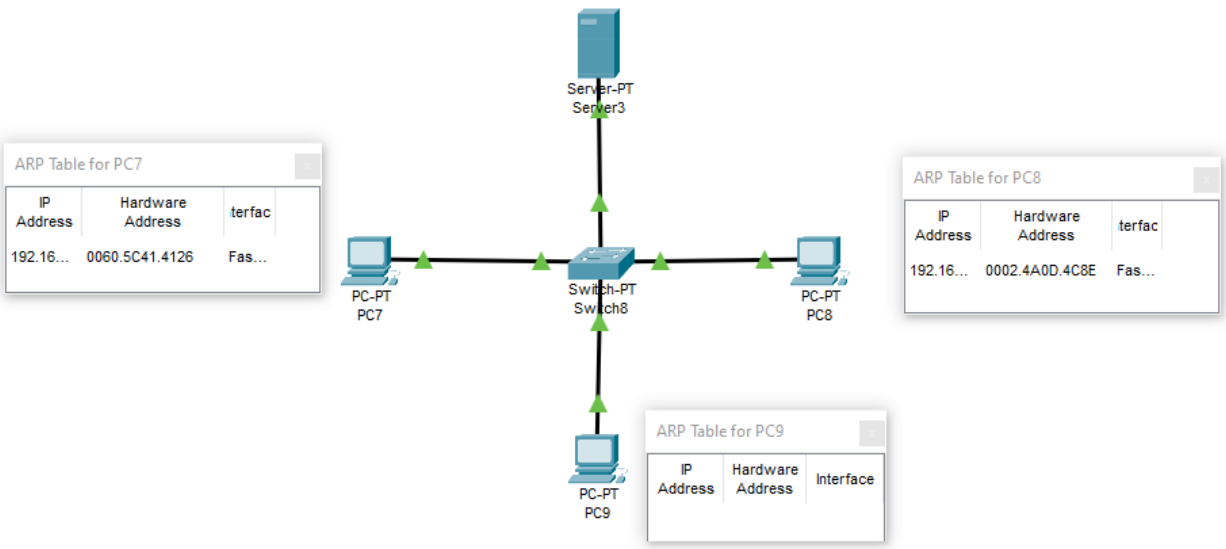
Requirements:

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

Procedure:

1. Open packet tracer.
2. Click on the list the available capture interface.
3. Choose the PCS, server and Hub.
4. Later give connection from hub to the remaining pcs.
5. Give IP address to the pcs with configuration.
6. Simulate the source and destination.

Diagram



Output :

Result: Thus the Data Link Layer Traffic Simulation using Packet Tracer Analysis of ARP is implemented.

Date:

EXPERIMENT-9

DATA LINK LAYER TRAFFIC SIMULATION USING PACKET TRACER ANALYSIS OF LLDP.

Aim: To analyze the Link Layer Discovery Protocol (LLDP) traffic using Cisco Packet Tracer by configuring LLDP on routers and switches in the given network topology.

Software / Apparatus required: Packet Tracer / End devices, Switches, connectors.

Requirements:

1. Routers
2 Switch
3. Cable

Procedure:

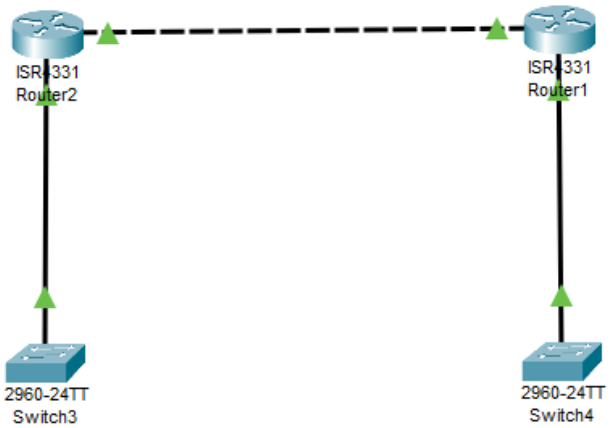
1. **Open Packet Tracer**
2. **Add Devices**
3. **Configure LLDP on Routers and Switches**

```
Router(config)# en
Router(config)# config t
Router(config)# lldp run
Router(config)#exit
```

4. **Verify LLDP Configuration**

```
Router# show lldp neighbors
Switch# show lldp neighbors
```

Diagram



Output :

Result: Thus the Link Layer Discovery Protocol (LLDP) traffic using Cisco Packet Tracer by configuring LLDP on routers and switches in the given network topology is analyzed.

Date:

EXPERIMENT-10

DATA LINK LAYER TRAFFIC SIMULATION USING PACKET TRACER

ANALYSIS OF CSMA/CD & CSMA/CA

Aim: To implement Data Link Layer Traffic Simulation using Packet Tracer Analysis of CSMA/CD & CSMA/CA.

Software / Apparatus required: Packet Tracer / End devices, Switches, connectors.

Requirements:

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

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.

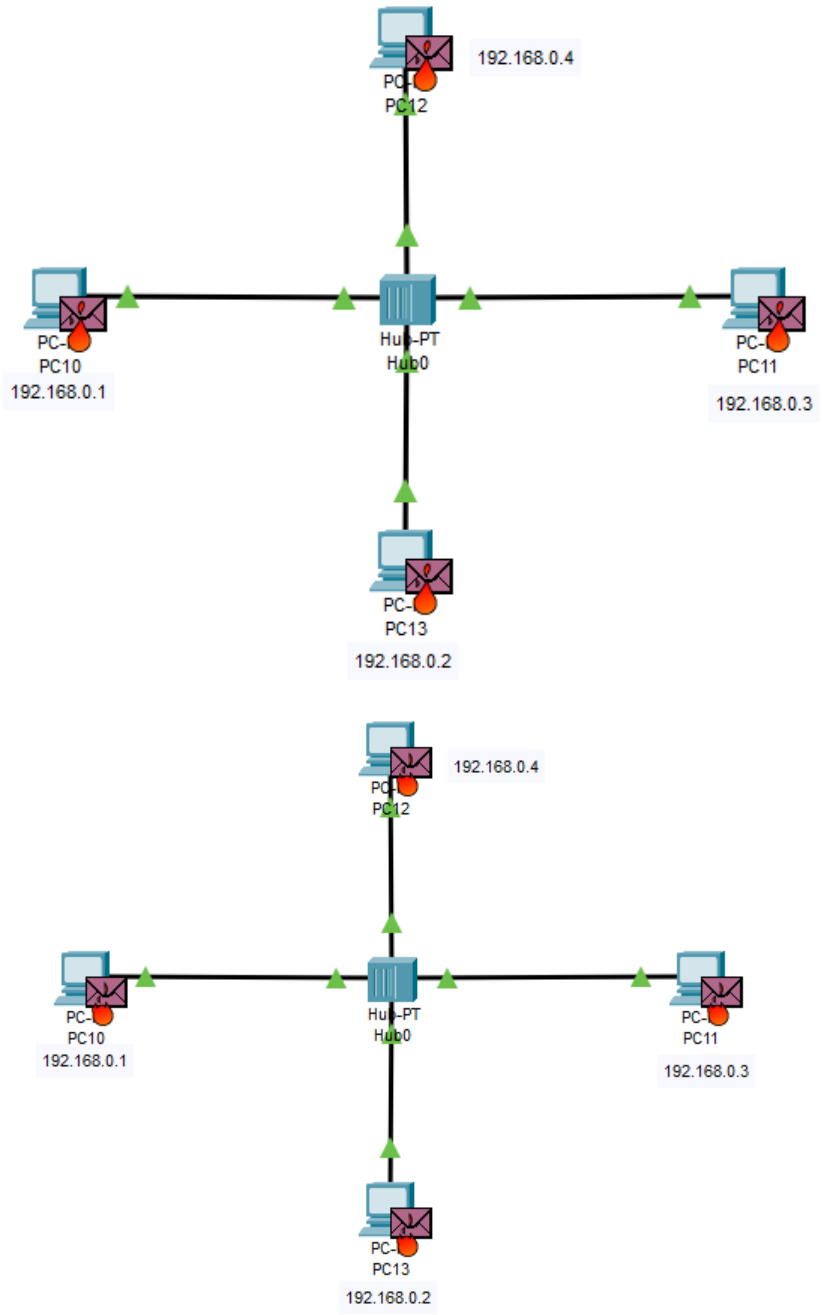
STEP 2: Select the straight through cable and connect all end device to switch. Assign the IP address for all end devices. (Double click the end device Select → desktop → IP configuration static)

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)

STEP 4: To view the IP address, give ip config 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.

Diagram:



Output:

Result: Thus Data Link Layer Traffic Simulation using Packet Tracer Analysis of CSMA/CD & CSMA/CA is implemented successfully.