CN Lab Report – Week 6

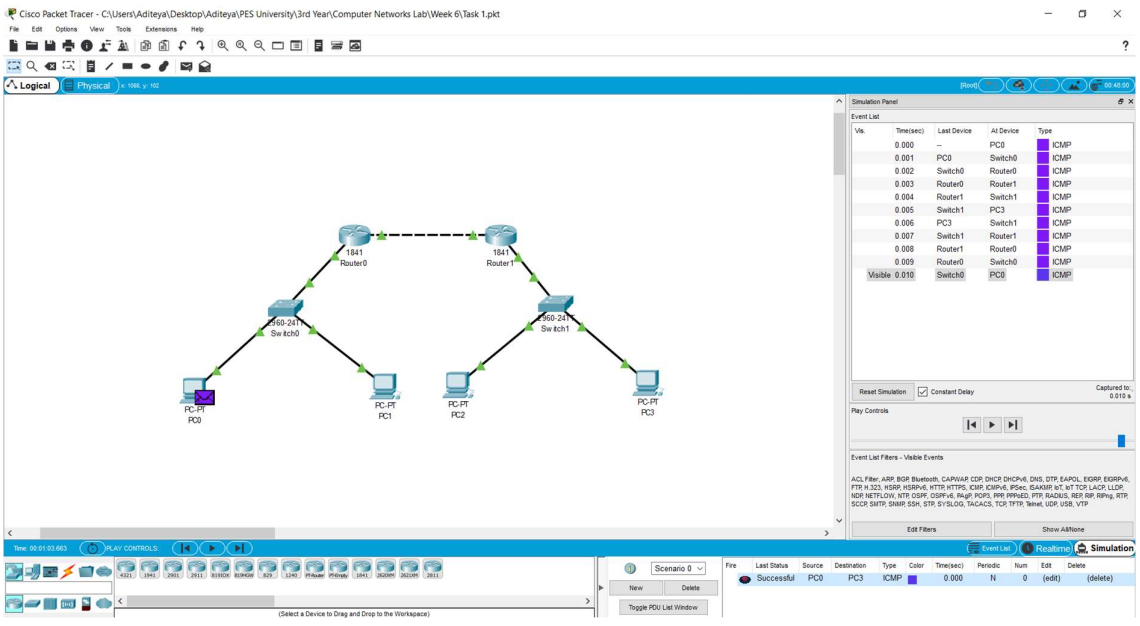
PES1201800366

Aditeya Baral

1. Task 1

1.1 Configuring Topology

- The network devices are organised in the required topology shown.
- IP Addresses have been assigned to each interface being used on the routers and end systems.
- The routing tables are then configured manually by adding the required routing information
- A PDU packet is then transferred from one end system on a network to another on a different network.
- If the packet transfer is successful, a successful status is shown in the bottom right corner.



1.2 Configuring Network and Routing Tables1.2.1 End Systems

End System	Interface Name	IP Address	Subnet Mask	Gateway
PC0	FastEthernet0	10.0.0.1	255.0.0.0	10.0.0.3
PC1	FastEthernet0	10.0.0.2	255.0.0.0	10.0.0.3
PC2	FastEthernet0	30.0.0.2	255.0.0.0	30.0.0.1
PC3	FastEthernet0	30.0.0.3	255.0.0.0	30.0.0.1

1.2.2 Routers

Router	Interface Name	IP Address	Subnet Mask
Router0	FastEthernet0/0	10.0.0.3	255.0.0.0
Router0	FastEthernet0/1	20.0.0.1	255.0.0.0
Router1	FastEthernet0/0	20.0.0.2	255.0.0.0
Router1	FastEthernet0/1	30.0.0.1	255.0.0.0

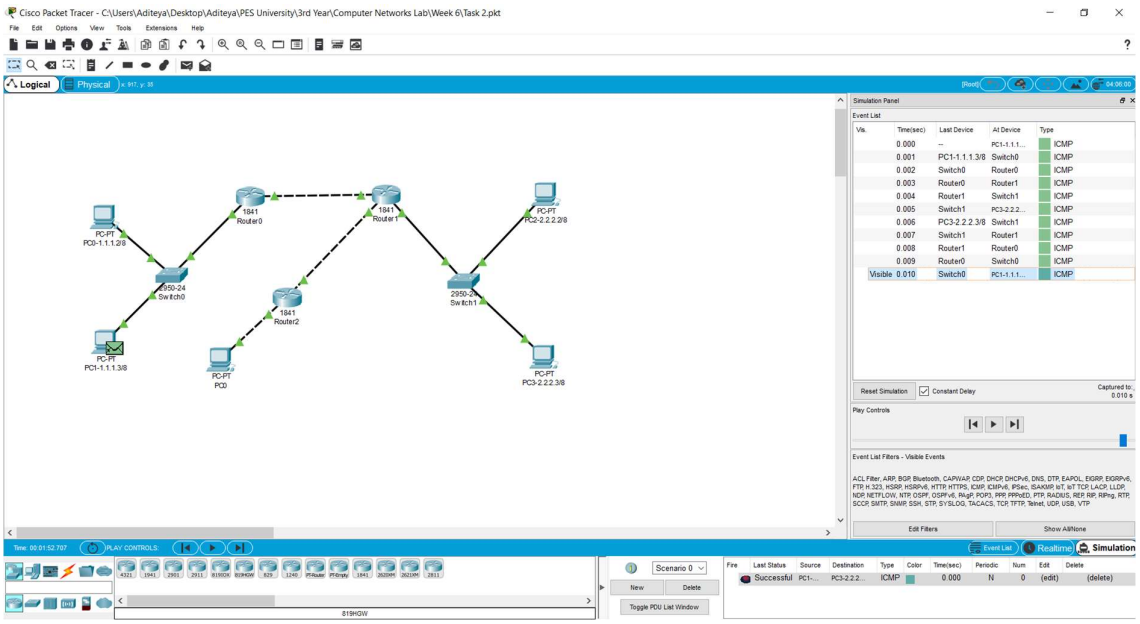
1.2.3 Routing Table

Router	Destination Network	Next Hop
Router0	30.0.0.0	20.0.0.2
Router1	10.0.0.0	20.0.0.1

2. Task 2

The task performed above is repeated with another topology and the routing tables are configured appropriately.

2.1 Configuring Topology



2.2 Configuring Network and Routing Tables

2.2.1 End Systems

End System	Interface Name	IP Address	Subnet Mask	Gateway
PC0-1.1.1.2/8	FastEthernet0	1.1.1.2	255.0.0.0	1.1.1.1
PC1-1.1.1.3/8	FastEthernet0	1.1.1.3	255.0.0.0	1.1.1.1
PC0	FastEthernet0	6.6.6.2	255.0.0.0	6.6.6.1
PC2-2.2.2.2/8	FastEthernet0	2.2.2.2	255.0.0.0	2.2.2.1
PC3-2.2.2.3/8	FastEthernet0	2.2.2.3	255.0.0.0	2.2.2.1

2.2.2 Routers

Router	Interface Name	IP Address	Subnet Mask
Router0	FastEthernet0/0	1.1.1.1	255.0.0.0
Router0	FastEthernet0/1	3.3.3.1	255.0.0.0
Router1	FastEthernet0/0	3.3.3.2	255.0.0.0
Router1	FastEthernet0/1	5.5.5.2	255.0.0.0
Router1	Ethernet0/0/0	2.2.2.1	255.0.0.0
Router2	FastEthernet0/0	5.5.5.1	255.255.255.0
Router2	FastEthernet0/1	6.6.6.1	255.255.255.0

2.2.3 Routing Table

Router	Destination Network	Next Hop
Router0	2.2.2.0	3.3.3.2
Router0	5.5.5.0	3.3.3.2
Router0	6.6.6.0	3.3.3.2
Router1	1.1.1.0	3.3.3.1
Router1	6.6.6.0	5.5.5.1
Router2	3.3.3.0	5.5.5.2
Router2	1.1.1.0	5.5.5.2
Router2	2.2.2.0	5.5.5.2