



Department of Computer Science & Engineering
COMPUTER NETWORKS

Lab #2

Designing and Simulation of Network Topology using Cisco Packet Tracer

UE22CS251B
4th Semester, Academic Year 2023-2024

Date:31-01-2024

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Objectives:

- To understand the purpose of Cisco Packet Tracer.
- To navigate, choose network and end devices and customize them.
- To interconnect devices and configure them using simple interface.
- To become familiar with building topologies in Packet Tracer.
- To simulate data interactions traveling through a network.

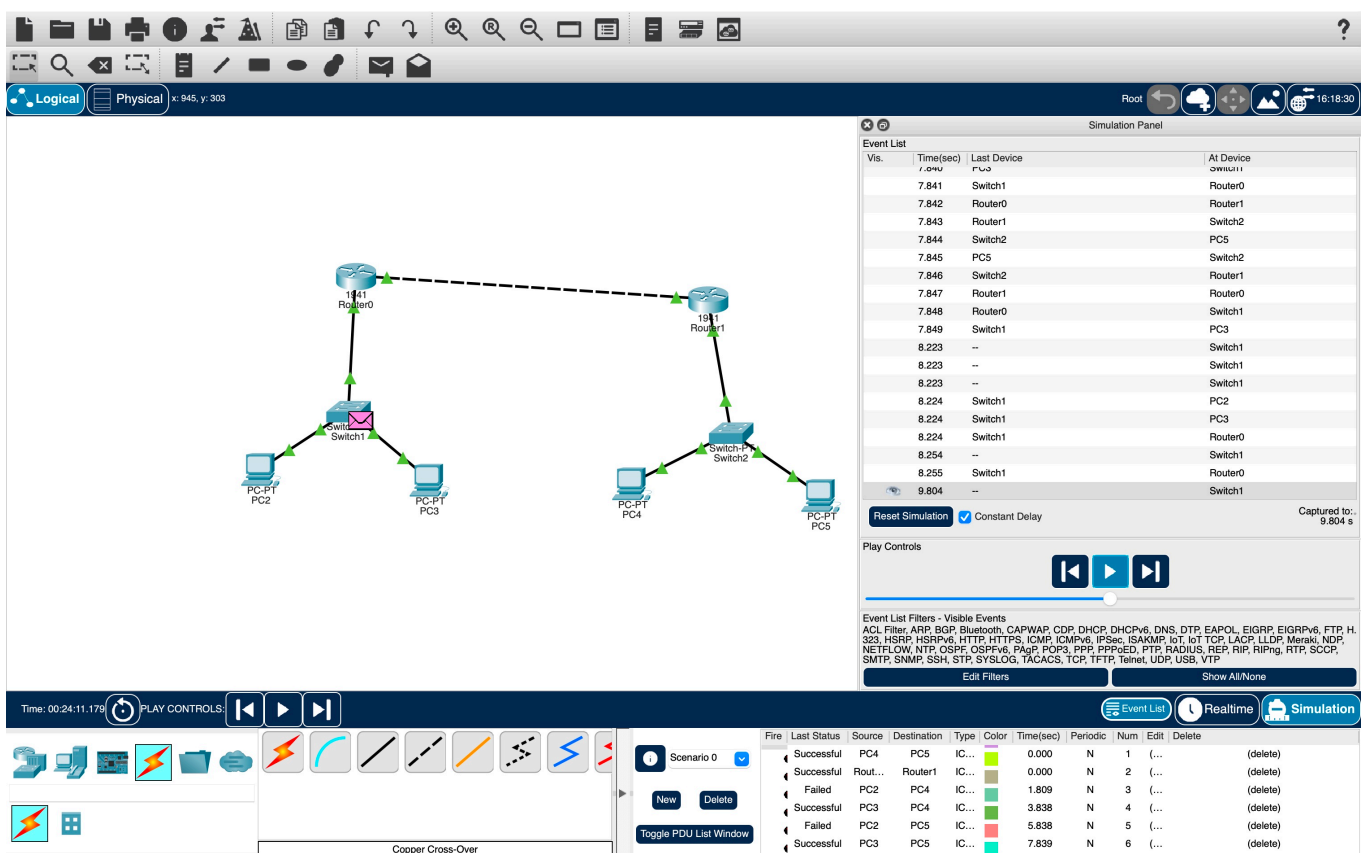
Prerequisites:

This lab assumes some understanding of the building blocks of communication networks and internet. At this point, we haven't discussed other protocols but you may use Packet Tracer in later labs to discuss those as well. Several types of devices and network connections can be used. For this experiment we will keep it simple by using end devices, switches, routers, and connections.

1.Task 1 (Demo)

Network Topology:

To replicate given scenario, create a topology in packet tracer, as shown in following image.



PC & Router Configuration Details:

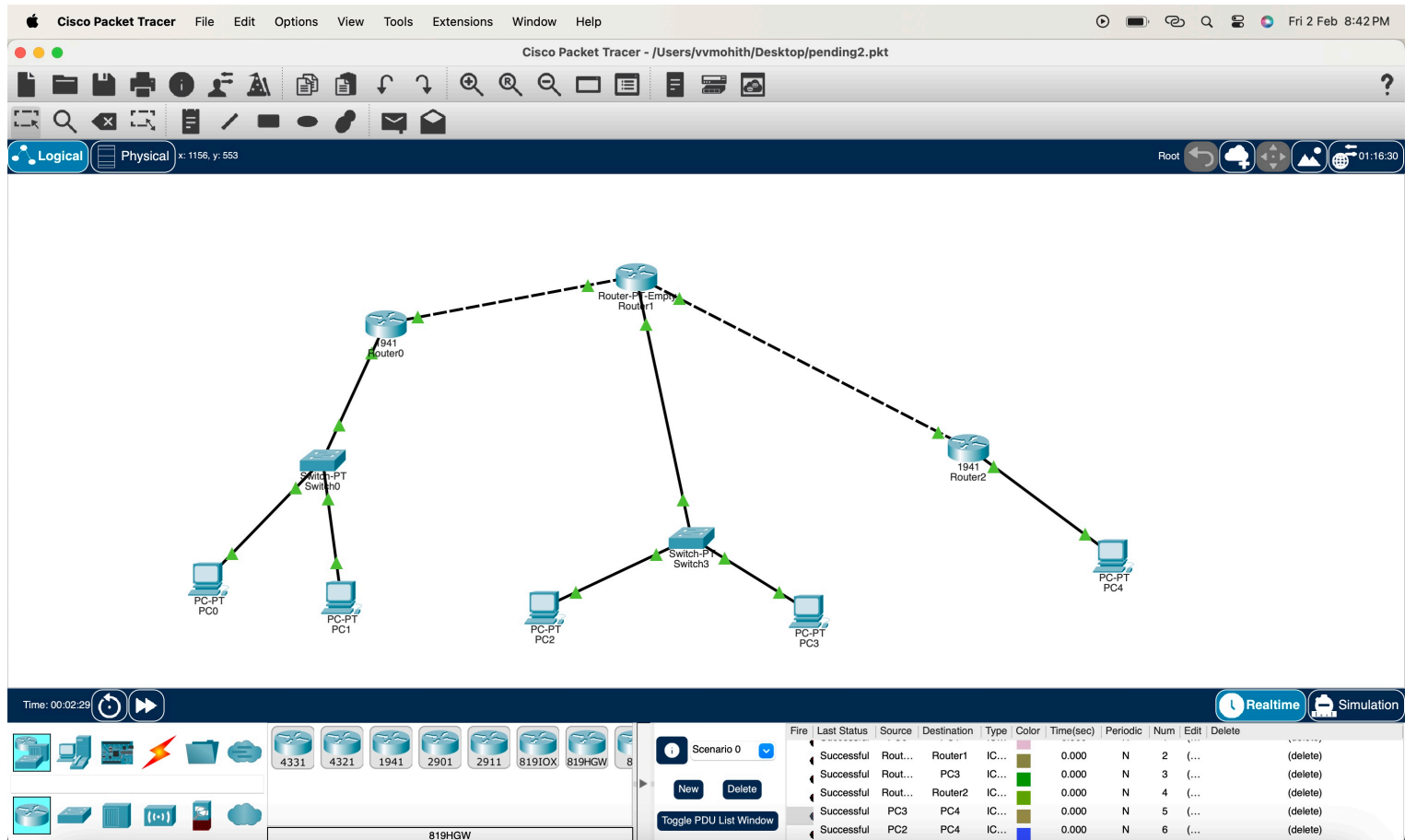
PC	Ip Address	Gateway
Pc2	10.10.1.1	10.10.1.3
Pc3	10.10.1.2	10.10.1.3
Pc4	10.10.2.1	10.10.2.3
Pc5	10.10.2.2	10.10.2.3

Router	fastEthernet0/0	Router0
Router0	10.10.1.3	10.10.3.1
Router1	10.0.2.3	10.0.3.2

Router	Network	Next hop
Router0	10.10.1.0	10.10.3.2
Router1	10.10.2.0	10.10.3.1

Task 2 (Mandatory)

In this task, students should explore how to add interfaces to the router.



PC & Router Configuration Details:

Pc	Ip address	Gateway
Pc0	10.10.1.1	10.10.1.3
Pc1	10.10.1.2	10.10.1.3

Pc	Ip address	Gateway
Pc2	10.10.2.1	10.10.2.3
Pc3	10.10.2.2	10.10.2.3
Pc4	10.10.4.1	10.10.4.1

Router	fastEthernet0/0	fastEthernet0/1	fastEthernet0/2
Router0	10.10.1.3	10.10.3.1	
Router1	10.10.3.2	10.10.5.1	10.10.2.3
Router2	10.10.4.1	10.10.5.2	

Router	Network	Next hop
Router0	10.10.1.0	10.10.3.2
Router1	10.10.2.0	10.10.3.1
Router1	10.10.4.0	10.10.5.2
Router2	10.10.2.0	10.10.5.1

Disclaimer:

- The programs and output submitted is duly written, verified and executed by me.
- I have not copied from any of my peers nor from the external resource such as internet.
- If found plagiarized, I will abide with the disciplinary action of the University.

Signature:

A handwritten signature in black ink, appearing to read 'V V Mohith', with a horizontal line drawn through the middle of the signature.

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Date: 18-01-2024