

LAB - 05
SMTP & FTP
Advanced Wireshark

NATIONAL UNIVERSITY OF COMPUTER AND EMERGING SCIENCES, KARACHI CAMPUS FAST SCHOOL OF COMPUTING (AI & DS, CS, CY, SE) SPRING 2025

### **Computer Networks Lab 05**

Course: Computer Networks (CL3001)

Semester: Fall 2025

Instructor: Sadaf Zehra T.A: N/A

#### Note:

• Maintain discipline during the lab.

• Listen and follow the instructions as they are given.

- Just raise hand if you have any problem.
- Completing all tasks of each lab is compulsory.
- Get your lab checked at the end of the session.

# Lab Objective

- Introduction to SMTP & FTP in Cisco Packet Tracer.
- Network traffic analysis of HTTP/HTTPS protocol headers, cookies using Wireshark.
- Network traffic analysis of DNS using Wireshark.
- Network traffic analysis of TCP protocol using Wireshark
- Network traffic analysis of UDP protocol using Wireshark

## Lab Exercise Wireshark:

Open the WiresharkLab5J.pcap file on Wireshark. Apply a HTTP filter and select the packet having serial no. 28 and answer the following questions:

- 1. What is the status code returned from the server to your browser?
- 2. When was the HTML file that you are retrieving last modified at the server?
- 3. What is the destination and source port no?
- 4. What is the destination and source ip address of the packet?
- 5. How many data-containing TCP segments were needed to carry the single HTTP response?

## **Lab Exercise SMTP and FTP:**

1. Let's suppose your organization needs to create its small server (to provide some services) based network. With below mentioned topology and instructions:

Attach a screenshot of each step.

Also, Submit a .pkt file.

- a) Configure **SMTP** (create an account with your last name along with the last 3 digits roll number) and send mail from PC 0 to PC 1, PC1 to PC 2 and PC0 to PC3.
- b) Configure the **FTP** server to create an account with your first name, password with your roll number, and filename with your last name (.bin extension) to show all connection results. The **FTP** Server should be established on Server 0, Server 1 and Server 3.

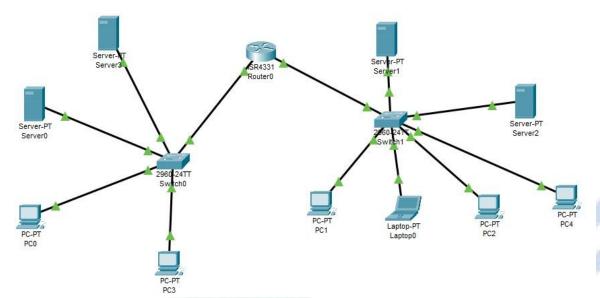


Figure 1

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