

Data Communication and Computer Network Laboratory

Master of Computer Application

Second Year, First Semester

Session: 2023-24

Assignment - VI

Date: 20/09/2023

ARP Poisoning Detection

ARP (Address Resolution Protocol) poisoning, also known as ARP spoofing, is a type of attack where an attacker sends falsified ARP reply messages over a local area network to link the attacker's MAC address with the IP address of another host (usually the default gateway). This allows the attacker to intercept, modify, or redirect network traffic intended for the target host.

In this exercise, you need to write a Python program to detect ARP poisoning attacks on the local network using **scapy** library. The program will continuously sniff ARP packets and compare the MAC addresses of the sender's IP with the one obtained from the system's ARP cache (ARP table). If a mismatch is found, it indicates the possibility of an ARP poisoning attack.

Your report should contain at least the following sections:

1. Problem Statement
2. Your design of the solution
3. Source code (with comments)
4. Screen shots of sample run