Network Security Laboratory Session 6

LAYER 3 ATTACKS

IP Spoofing

- Similar to ARP spoofing attack but it relies on the IP address of a victim host
- There are many different techniques to perform this attack but the most common is to use an ARP poisoner
- In this case the ARP poisoner will send ARP reply associating its MAC address to the victim IP Address
- When the router will forward packets the attacker will receive all the data

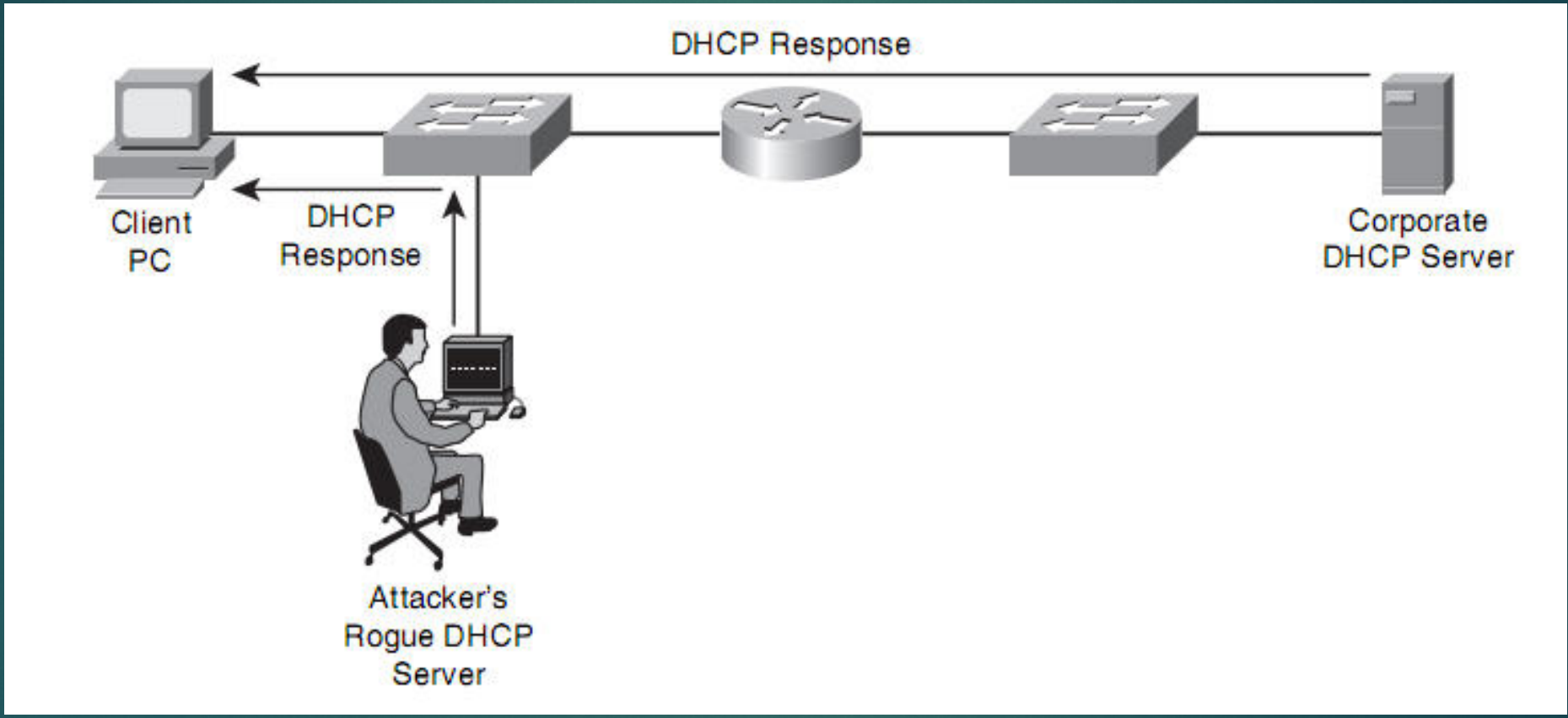
DNS Spoofing

- DNS cache poisoning (or DNS Spoofing), is a form of computer security hacking in which corrupt Domain Name System data is introduced into the DNS resolver's cache
- It causes the name server to return an incorrect result record (for example, an wrong IP address)
- All the traffic is diverted to the attacker's computer (or to any other computer)

DHCP Spoofing

- DHCP Spoofing attack is the most relyable MITM attack
- A victim will receive an IP address from the Rogue DHCP server and will be connected to its subnet
- All traffick will be captured from the Rogue server

DHCP Spoofing



Man In The Middle (MITM)

- All the attacks we built so far are part of MITM
- A MITM is a type of attack in which an Host is able to capture, read and forward packets of other hosts
- We will try to create a full-duplex MITM, based on ARP Spoofing, using ettercap

Ettercap

- Ettercap is a well-known tool for MITM attacks
- We will focus on ARP and DNS spoofing attacks
- Install Ettercap using the following command
  - sudo apt install ettercap-text-only