**EXP NO:8** **NMAP TO DISCOVER LIVE HOSTS** **11/09/24**

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**AIM:**

To learn how to use Nmap to discover live hosts using ARP scan, ICMP scan and TCP/UDP ping scan.

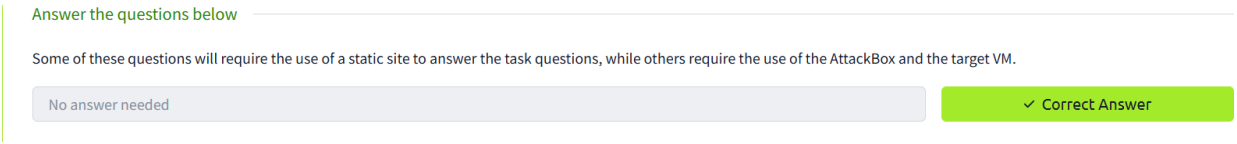
**PROCEDURE:**

To perform the Nmap to discover the live hosts the following tasks need to be performed.

* TASK 1:Introduction
* TASK2: Subnetworks
* TASK 3:Enumerating Targets
* TASK 4:Discovering Live hosts
* TASK 5:Nmap host discovery using ARP
* TASK 6:Nmap host discovery using ICMP
* TASK 7:Nmap host discovery using TCP and UDP
* TASK 8: Using reverse-dns lookup
* TASK 9:Summary

**OUTPUT:**

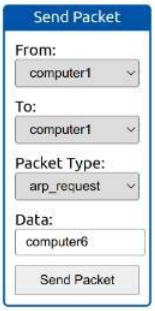
TASK 1:INTRODUCTION




TASK2: SUBNETWORKS

Answer the questions below

Send a packet with the following:




- From computer1
- To computer1 (to indicate it is broadcast)
- Packet Type: "ARP Request"
- Data: computer6 (because we are asking for computer6 MAC address using ARP Request)

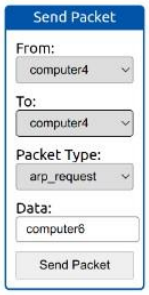
How many devices can see the ARP Request?

4 ✓ Correct Answer Hint

Did computer6 receive the ARP Request? (Y/N)

N ✓ Correct Answer

Send a packet with the following:




- From computer4
- To computer4 (to indicate it is broadcast)
- Packet Type: "ARP Request"
- Data: computer6 (because we are asking for computer6 MAC address using ARP Request)

How many devices can see the ARP Request?

4 ✓ Correct Answer Hint

Did computer6 reply to the ARP Request? (Y/N)

Y ✓ Correct Answer

## TASK 3:ENUMERATING TARGETS

Answer the questions below

What is the first IP address Nmap would scan if you provided `10.10.12.13/29` as your target?

10.10.12.8 ✓ Correct Answer Hint

How many IP addresses will Nmap scan if you provide the following range `10.10.0-255.101-125`?

6400 ✓ Correct Answer Hint

## TASK 4:DISCOVERING LIVE HOSTS

Answer the questions below

Send a packet with the following:

- From computer1
- To computer3
- Packet Type: "Ping Request"

What is the type of packet that computer1 sent before the ping?

ARP Request ✓ Correct Answer

What is the type of packet that computer1 received before being able to send the ping?

ARP Response ✓ Correct Answer

How many computers responded to the ping request?

1 ✓ Correct Answer

Send a packet with the following:

- From computer2
- To computer5
- Packet Type: "Ping Request"

What is the name of the first device that responded to the first ARP Request?

router ✓ Correct Answer

What is the name of the first device that responded to the second ARP Request?

computer5 ✓ Correct Answer

Send another Ping Request. Did it require new ARP Requests? (Y/N)

N ✓ Correct Answer

## TASK 5:NMAP HOST DISCOVERY USING ARP

Answer the questions below

We will be sending broadcast ARP Requests packets with the following options:

- From computer1
- To computer1 (to indicate it is broadcast)
- Packet Type: "ARP Request"
- Data: try all the possible eight devices (other than computer1) in the network: computer2, computer3, computer4, computer5, computer6, switch1, switch2, and router.

How many devices are you able to discover using ARP requests?

3 ✓ Correct Answer

## TASK 6:NMAP HOST DISCOVERY USING ICMP

Answer the questions below

What is the option required to tell Nmap to use ICMP Timestamp to discover live hosts?

-PP ✓ Correct Answer

What is the option required to tell Nmap to use ICMP Address Mask to discover live hosts?

-PM ✓ Correct Answer

What is the option required to tell Nmap to use ICMP Echo to discover live hosts?

-PE ✓ Correct Answer

## TASK 7:NMAP HOST DISCOVERY USING TCP AND UDP

Answer the questions below

Which TCP ping scan does not require a privileged account?

TCP SYN Ping ✓ Correct Answer

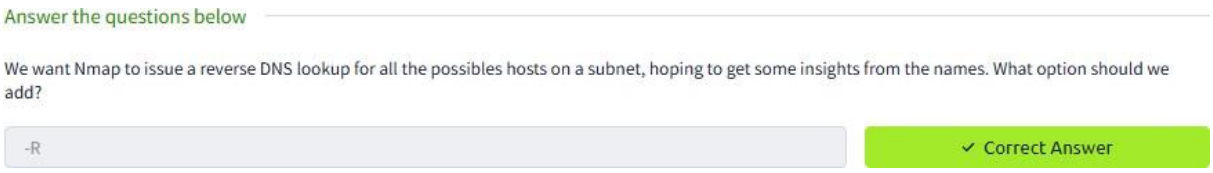
Which TCP ping scan requires a privileged account?

TCP ACK Ping ✓ Correct Answer

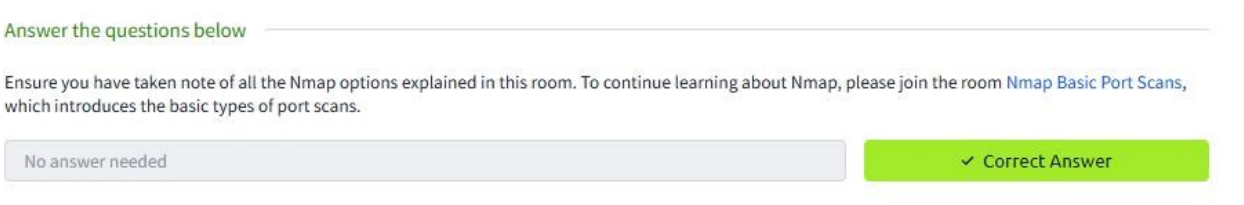
What option do you need to add to Nmap to run a TCP SYN ping scan on the telnet port?

-PS23 ✓ Correct Answer Hint

TASK 8: USING REVERSE-DNS LOOKUP




TASK 9: SUMMARY




**RESULT:**

Nmap to discover live hosts using ARP scan,ICMP scan and TCP and UDP ping scan in the tryhackme platform.