



Network Scanning Complete

- SCANNING
- TCP COMMUNICATION
- SCANNING TECHNIQUES
- WIRESHARK
- SCANNING TOOLS
- EVASION TECHNIQUES
- NMAP SCRIPTING

SCANNING

Network Scanning is a method of getting network information such as identification of hosts, port information, and services by scanning networks and ports.

The main Objective of Network Scanning is :-

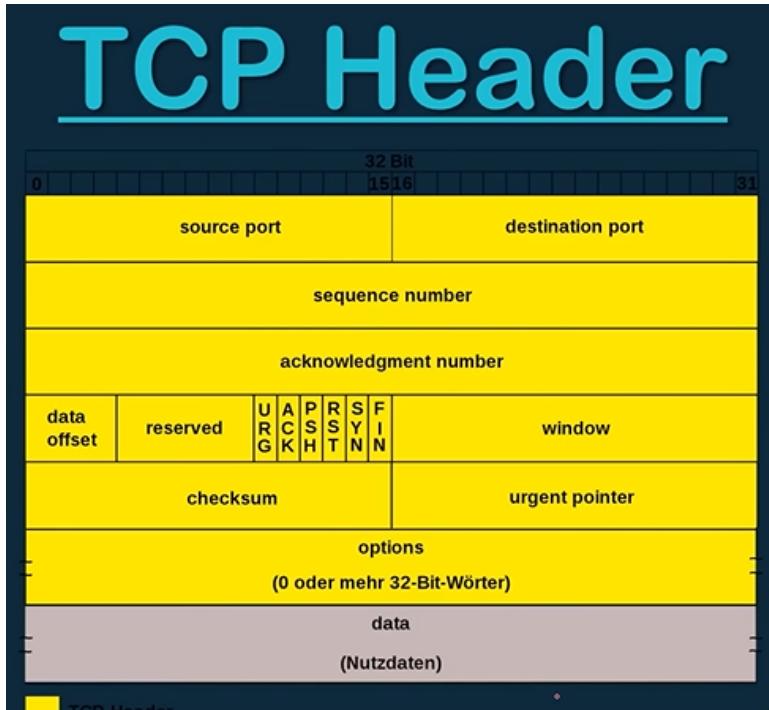
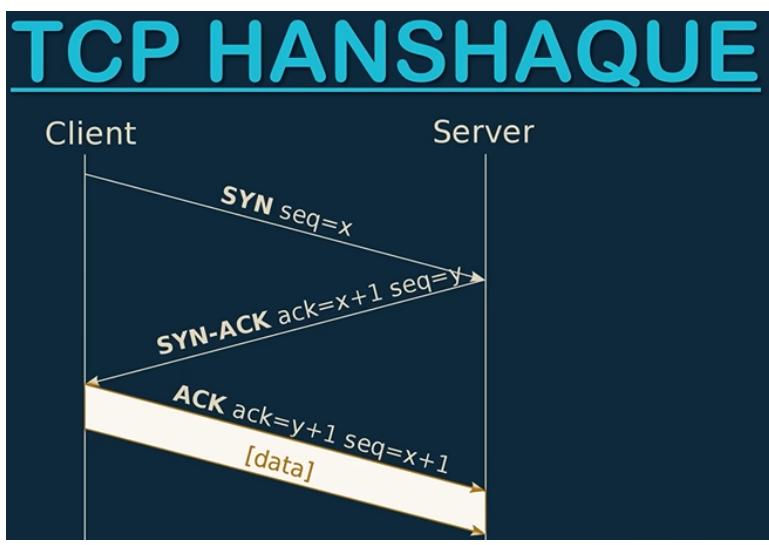
- To identify live hosts on a network
- To identify open & closed ports
- To identify operating system information
- To identify services running on a network
- To identify running processes on a network
- To identify vulnerabilities



TCP and UDP

- **TCP** - Transmission Control Protocol
- **UDP** - User Datagram Protocol

TCP is connection oriented – once a connection is established, data can be sent bidirectional.
UDP is a simpler, connectionless Internet protocol. Multiple messages are sent as packets in chunks using **UDP**.



TCP FLAGS

- **SYN** Initiates a connection between two hosts to facilitate communication.
- **ACK** Acknowledge the receipt of a packet.
- **URG** Indicates that the data contained in the packet is urgent and should process immediately.
- **PSH** Instructs the sending system to send all buffered data immediately.
- **FIN** Tells the remote system about the end of the communication. In essence, this gracefully closes a connection.
- **RST** Reset a connection.

First Rule check the connection on/off Target

```
—(hacking㉿windows)-[~]
└$ ping 192.168.1.102
PING 192.168.1.102 (192.168.1.102) 56(84) bytes of data.
64 bytes from 192.168.1.102: icmp_seq=1 ttl=64 time=10.7 ms
64 bytes from 192.168.1.102: icmp_seq=2 ttl=64 time=4.33 ms
^C
--- 192.168.1.102 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1002ms
rtt min/avg/max/mdev = 4.332/7.517/10.702/3.185 ms
```

```
—(root㉿windows)-[/home/hacking] #check through nmap
└# nmap -sn 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 09:41
Nmap scan report for 192.168.1.102
Host is up (0.080s latency).
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
Nmap done: 1 IP address (1 host up) scanned in 0.22 seconds
```

Firewall bypass check the host up/down
 ARP ADDress = Address Resolution protocol

Address	Hwtype	Hwaddress	Flags	Mac

```
_gateway          ether  0c:xxxxxxxxxxxxxx  C
192.168.1.102    ether  d8:xxxxxxxxxxxxxx  C
```

```
—(root㉿windows)-[~/home/hacking]
└# sudo nmap -sn 192.168.1.101 -PR
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 09:48
Nmap scan report for 192.168.1.101
Host is up.

Nmap done: 1 IP address (1 host up) scanned in 0.01 seconds
```

```
# check the (Hub) pass packet point to point - using Traceroute
```

```
—(root㉿windows)-[~/home/hacking]
└# nmap -sn --traceroute google.com
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 09:51
Nmap scan report for google.com (142.250.183.142)
Host is up (0.071s latency).

Other addresses for google.com (not scanned): 2404:6800:4009::1
rDNS record for 142.250.183.142: bom07s31-in-f14.1e100.net
```

```
TRACEROUTE (using port 80/tcp)
```

HOP	RTT	ADDRESS
1	3.51 ms	192.168.1.1
2	4.56 ms	192.168.0.1
3	44.34 ms	106.208.190.65
4	... 6	
7	67.82 ms	72.14.213.254
8	65.36 ms	216.239.47.175
9	64.74 ms	142.250.214.113
10	61.18 ms	bom07s31-in-f14.1e100.net (142.250.183.142)

```
Nmap done: 1 IP address (1 host up) scanned in 3.53 seconds
```

```
# DNS Address change / DNS Resolution on/off
```

```
—(root㉿windows)-[~/home/hacking]
```

```
└# nmap google.com --dns-server 1.1.1.1

—(root㉿windows)-[~/home/hacking]
└# nmap -n facebook.com          # name Resolution cut in the

—(root㉿windows)-[~/home/hacking]
└# nmap -Pn facebook.com        # ping scan off
```



Port States

Open: Open indicates that a service is listening for connections on this port.
Closed: Closed indicates that the probes were received, but it was concluded that there was no service running on this port.
Filtered: Filtered indicates that there were no signs that the probes were received and the state could not be established. It also indicates that the probes are being dropped by some kind of filtering.
Unfiltered: Unfiltered indicates that the probes were received but a state could not be established.
Open/Filtered: This indicates that the port was filtered or open but the state could not be established.
Close/Filtered: This indicates that the port was filtered or closed but the state could not be established.

```
# port scan 80 -http

—(root㉿windows)-[~/home/hacking]
└# nmap -p 80 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:00
Nmap scan report for 192.168.1.102
Host is up (0.099s latency).

PORT      STATE SERVICE
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 0.31 seconds

—(root㉿windows)-[~/home/hacking]
└# nmap -p 21 192.168.1.102
```

```
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:01
Nmap scan report for 192.168.1.102
Host is up (0.12s latency).
```

```
PORT      STATE SERVICE
21/tcp    closed  ftp
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

```
Nmap done: 1 IP address (1 host up) scanned in 0.33 seconds
```

```
-----  
# multiple port scan  
└─(root㉿windows)-[/home/hacking]  
  └─# nmap -p 21,80,22 192.168.1.102  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:01
Nmap scan report for 192.168.1.102
Host is up (0.045s latency).
```

```
PORT      STATE SERVICE
21/tcp    closed  ftp
22/tcp    open   ssh
80/tcp    open   http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

```
Nmap done: 1 IP address (1 host up) scanned in 0.33 seconds
```

```
-----  
# range scan  
└─(root㉿windows)-[/home/hacking]  
  └─# nmap -p 1-1000 192.168.1.102  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:01
Nmap scan report for 192.168.1.102
Host is up (0.0065s latency).
Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open   ssh
53/tcp    open   domain
80/tcp    open   http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

```
Nmap done: 1 IP address (1 host up) scanned in 0.59 seconds
-----
# All port scan 65535
└─(root㉿windows)-[/home/hacking]
  └─# nmap -p- 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:01
Nmap scan report for 192.168.1.102
Host is up (0.0047s latency).
Not shown: 65532 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 13.34 seconds
```

```
# only TCP ports scan

—(root㉿windows)-[/home/hacking]
└─# nmap -sT 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:11
Nmap scan report for 192.168.1.102
Host is up (0.57s latency).
Not shown: 997 closed tcp ports (conn-refused)
PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

```
# Only UDP port Scan

└─(root㉿windows)-[/home/hacking]
  └─# nmap -sU 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:11
Stats: 0:01:04 elapsed; 0 hosts completed (1 up), 1 undergoing
```

```
UDP Scan Timing: About 7.27% done; ETC: 10:29 (0:13:37 remain)
Nmap scan report for 192.168.1.102
Host is up (0.091s latency).
Not shown: 997 closed udp ports (port-unreach)
PORT      STATE            SERVICE
53/udp    open|filtered  domain
67/udp    open|filtered  dhcps
5353/udp  open|filtered  zeroconf
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 1093.56 second
```

Time tacking

```
# Scan IP address / Target Domain

—(root㉿windows)-[/home/hacking]
└# nmap certifiedhacker.com
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:10
Nmap scan report for certifiedhacker.com (162.241.216.11)
Host is up (0.39s latency).
rDNS record for 162.241.216.11: box5331.bluehost.com
Not shown: 984 closed tcp ports (reset)
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
25/tcp    open  smtp
26/tcp    open  rsftp
53/tcp    open  domain
80/tcp    open  http
110/tcp   open  pop3
143/tcp   open  imap
443/tcp   open  https
465/tcp   open  smtps
587/tcp   open  submission
```

```
993/tcp  open  imaps
995/tcp  open  pop3s
2222/tcp open  EtherNetIP-1
3306/tcp open  mysql
5432/tcp open  postgresql
Nmap done: 1 IP address (1 host up) scanned in 5.18 seconds

# multiple ip address scan
└─(root㉿windows)-[/home/hacking]
  └─# nmap 192.168.1.102,130,131
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:2
Nmap scan report for 192.168.1.102
Host is up (0.0053s latency).
Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
Nmap done: 3 IP addresses (1 host up) scanned in 2.35 seconds

# range ip address scan

└─(root㉿windows)-[/home/hacking]
  └─# nmap 192.168.1./*
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:2
Nmap scan report for 192.168.1.1
Host is up (0.0051s latency).
Not shown: 998 closed tcp ports (reset)
PORT      STATE SERVICE
53/tcp    open  domain
80/tcp    open  http
MAC Address: 0C:xxxxxxxxxxxxxx (D-Link International)

Nmap scan report for 192.168.1.100
Host is up (0.00075s latency).
All 1000 scanned ports on 192.168.1.100 are in ignored states
Not shown: 1000 filtered tcp ports (no-response)
```

```
MAC Address: 34:xxxxxxxxxxxxxx (AzureWave Technology)
```

```
Nmap scan report for 192.168.1.102
Host is up (0.010s latency).
Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

```
Nmap scan report for 192.168.1.101
Host is up (0.0000030s latency).
All 1000 scanned ports on 192.168.1.101 are in ignored states
Not shown: 1000 closed tcp ports (reset)
Nmap done: 256 IP addresses (4 hosts up) scanned in 7.44 sec
```

```
# List of Host and ip address
```

```
└──(root㉿windows)-[/home/hacking]
  └─# nmap -iL iplist.txt
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:30
Nmap scan report for 192.168.1.102
Host is up (0.0092s latency).
Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

```
Nmap scan report for 192.168.1.1
Host is up (0.0043s latency).
Not shown: 998 closed tcp ports (reset)
PORT      STATE SERVICE
53/tcp    open  domain
80/tcp    open  http
```

```
MAC Address: 0C:xxxxxxxxxxxxxx (D-Link International)
```

```
Nmap scan report for 192.168.0.1
```

```
Host is up (0.013s latency).
```

```
Not shown: 998 closed tcp ports (reset)
```

```
PORT      STATE SERVICE
```

```
53/tcp    open  domain
```

```
80/tcp    open  http
```

```
Nmap done: 3 IP addresses (3 hosts up) scanned in 1.23 seconds
```

```
# All ip address scan in ex... in the internet (Not scan this
```

```
—(root㉿windows)-[/home/hacking]
```

```
└─# nmap -iR
```

```
# Protocol scan like ssh,telnet,smtp etc
```

```
└─(root㉿windows)-[/home/hacking]
```

```
└─# nmap -p ssh 192.168.1.102
```

```
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:3:
```

```
Nmap scan report for 192.168.1.102
```

```
Host is up (0.092s latency).
```

```
PORT      STATE SERVICE
```

```
22/tcp    open  ssh
```

```
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

```
Nmap done: 1 IP address (1 host up) scanned in 0.31 seconds
```

```
# Change enterface Eth0/Wlan0
```

```
—(root㉿windows)-[/home/hacking]
```

```
└─# nmap -e eth0 192.168.1.102
```

```
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:3:
```

```
Nmap scan report for 192.168.1.102
```

```
Host is up (0.0079s latency).
```

```
Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

```
Nmap done: 1 IP address (1 host up) scanned in 0.46 seconds
```

```
# Versions scan
```

```
—(root㉿windows)-[~/home/hacking]
└# nmap -sV 192.168.1.102 -p 22
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:31
Nmap scan report for 192.168.1.102
Host is up (0.092s latency).

PORT      STATE SERVICE VERSION
22/tcp    open  ssh      OpenSSH 9.6p1 Debian 3 (protocol 2.0)
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

```
Service detection performed. Please report any incorrect results
at https://nmap.org/submit/ .
```

```
Nmap done: 1 IP address (1 host up) scanned in 0.65 seconds
```

```
—(root㉿windows)-[~/home/hacking]
└# nmap -sV 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:31
Nmap scan report for 192.168.1.102
Host is up (0.0045s latency).

Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE      VERSION
22/tcp    open  ssh          OpenSSH 9.6p1 Debian 3 (protocol 2.0)
53/tcp    open  tcpwrapped
80/tcp    open  http         Apache httpd 2.4.58 ((Debian))
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

```
Service detection performed. Please report any incorrect results at
https://nmap.org/submit/ .

Nmap done: 1 IP address (1 host up) scanned in 7.07 seconds
```

```
-----  
—(root㉿windows)-[~/home/hacking]  
└─# nmap -sV --version-intensity 9 -p 22 192.168.1.102  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:43  
Nmap scan report for 192.168.1.102  
Host is up (0.047s latency).
```

```
PORT      STATE SERVICE VERSION  
22/tcp    open  ssh      OpenSSH 9.6p1 Debian 3 (protocol 2.0)  
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)  
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

```
Service detection performed. Please report any incorrect results at
https://nmap.org/submit/ .

Nmap done: 1 IP address (1 host up) scanned in 0.67 seconds
```

```
# operating system Ditect
```

```
—(root㉿windows)-[~/home/hacking]  
└─# nmap -O 192.168.1.102  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:44  
Nmap scan report for 192.168.1.102  
Host is up (0.0080s latency).  
Not shown: 997 closed tcp ports (reset)  
PORT      STATE SERVICE  
22/tcp    open  ssh  
53/tcp    open  domain  
80/tcp    open  http  
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)  
Device type: phone  
Running: Google Android 5.X|6.X|7.X, Linux 3.X  
OS CPE: cpe:/o:google:android:5 cpe:/o:google:android:6 cpe:  
/o:google:android:7 cpe:/o:linux:linux_kernel:3
```

```
OS details: Android 5.0 - 7.0 (Linux 3.4 - 3.10)
```

```
Network Distance: 1 hop
```

```
OS detection performed. Please report any incorrect results at  
https://nmap.org/submit/.
```

```
Nmap done: 1 IP address (1 host up) scanned in 2.00 seconds
```

```
└──(root㉿windows)-[/home/hacking]
```

```
└─# nmap -O --osscan-guess 192.168.1.102
```

```
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 10:41
```

```
Nmap scan report for 192.168.1.102
```

```
Host is up (0.0074s latency).
```

```
Not shown: 997 closed tcp ports (reset)
```

```
PORt STATE SERVICE
```

```
22/tcp open ssh
```

```
53/tcp open domain
```

```
80/tcp open http
```

```
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

```
Device type: phone
```

```
Running: Google Android 5.X|6.X|7.X, Linux 3.X
```

```
OS CPE: cpe:/o:google:android:5 cpe:/o:google:android:6
```

```
cpe:/o:google:android:7 cpe:/o:linux:linux_kernel:3
```

```
OS details: Android 5.0 - 7.0 (Linux 3.4 - 3.10)
```

```
Network Distance: 1 hop
```

```
OS detection performed. Please report any incorrect results at
```

```
Nmap done: 1 IP address (1 host up) scanned in 2.02 seconds
```



Passive O.S Fingerprinting and Banner Grabbing

- Analyzing TTL value and window size

Operating System	TTL	TCP Window Size
LINUX	64	5840
WINDOWS	128	8192
CISCO ROUTER	255	4128

```
# TTL value analyst to find the OS running in the Target mach.  
  
—(root㉿windows)-[~/home/hacking]  
└# ping 192.168.0.76  
PING 192.168.0.76 (192.168.0.76) 56(84) bytes of data.  
64 bytes from 192.168.0.76: icmp_seq=1 ttl=64 time=77.1 ms  
64 bytes from 192.168.0.76: icmp_seq=2 ttl=64 time=89.8 ms  
^C  
--- 192.168.0.76 ping statistics ---  
2 packets transmitted, 2 received, 0% packet loss, time 1003ms  
rtt min/avg/max/mdev = 77.067/83.439/89.811/6.372 ms  
  
TTL VALUE = 64 = Linux  
TTL VALUE = 60 aprox = MAC apple  
-----  
  
—(root㉿windows)-[~/home/hacking]  
└# ping 192.168.0.76  
  
PING 192.168.0.76 (192.168.0.76) 56(84) bytes of data.  
64 bytes from 192.168.0.76: icmp_seq=1 ttl=128 time=176 ms  
64 bytes from 192.168.0.76: icmp_seq=2 ttl=128 time=120 ms  
  
TTL VALUE = 128 = windows Running
```

```
# IPv6 Scan  
—(root㉿windows)-[/home/hacking]  
└# nmap -6 41526615516617
```

```
# aggressive Scan  
Nmap has a special flag to activate aggressive detection, named -A.  
Aggressive mode enables OS detection ( -O ), version detection ( -V ), script scanning ( -sC ), and traceroute ( --traceroute ).
```

```
—(root㉿windows)-[/home/hacking]  
└# nmap -A 192.168.0.76  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 12:34-05  
Nmap scan report for 192.168.0.76  
Host is up (0.014s latency).  
Not shown: 997 closed tcp ports (reset)  
PORT      STATE SERVICE      VERSION  
22/tcp    open  ssh          OpenSSH 9.6p1 Debian 3 (protocol 2.0)  
| ssh-hostkey:  
|_ 256 f6:9c:d1:0f:4a:f5:79:bd:8a:c5:00:21:ed:9d:6a:56 (ECDSA)  
|_ 256 c4:69:86:59:8d:32:2f:e2:ff:ec:8d:c9:95:54:f1:dd (ED25519)  
53/tcp    open  tcpwrapped  
80/tcp    open  http         Apache httpd 2.4.58 ((Debian))  
|_http-server-header: Apache/2.4.58 (Debian)  
|_http-title: Log in to WifiLock using your Google Facebook Twitter...  
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)  
Device type: phone  
Running: Google Android 5.X|6.X|7.X, Linux 3.X  
OS CPE: cpe:/o:google:android:5 cpe:/o:google:android:6  
cpe:/o:google:android:7 cpe:/o:linux:linux_kernel:3  
OS details: Android 5.0 - 7.0 (Linux 3.4 - 3.10)  
Network Distance: 1 hop  
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

TRACEROUTE

```
HOP RTT      ADDRESS
1  14.17 ms  192.168.0.76
```

OS and Service detection performed. Please report any incorrect results at
<https://nmap.org/submit/>.

Nmap done: 1 IP address (1 host up) scanned in 18.48 seconds

Security Devices in Network Like

Firewall -

IDS - intrusion detection system

IPS - intrusion prevention system

Antvires-

Security Devices Bypass

```
# Firewall off
—(root㉿windows)-[~/home/hacking]
└# nmap -p 22 192.168.0.76
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 12:41
Nmap scan report for 192.168.0.76
Host is up (0.17s latency).
```

PORt STATE SERVICE

22/tcp open ssh

MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 0.71 seconds

```
# Firewall bypass Not -Pn
```

```
—(root㉿windows)-[~/home/hacking]
```

```
└# nmap -p 22 192.168.0.51 -Pn
```

```
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-09 12:41
```

Nmap scan report for LAPTOP-HIT6CD6V (192.168.0.51)

Host is up (0.080s latency).

PORt STATE SERVICE

22/tcp filtered ssh

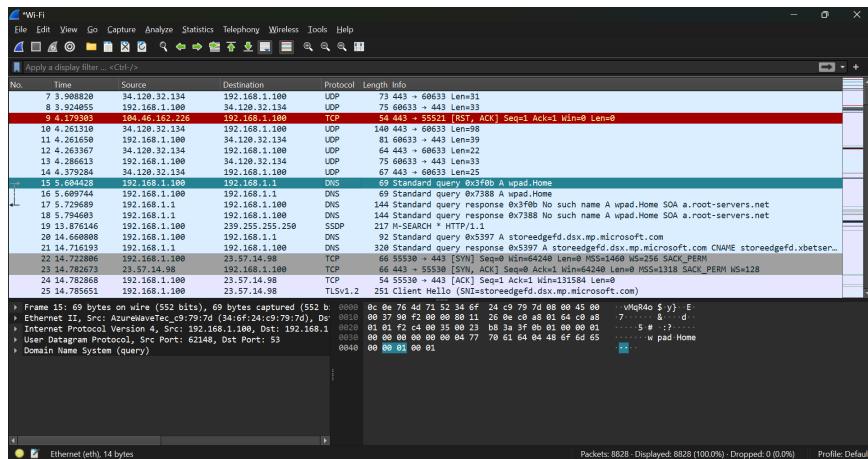
MAC Address: 34:xxxxxxxxxxxxxx (AzureWave Technology)

```
Nmap done: 1 IP address (1 host up) scanned in 1.22 seconds
```

Wireshark

Source Ip ----->>> Destination

- Capture options
- save file open
- save the capture file
- deleted options
- Reload options
- Find the packet



Port Open or Not check with Wireshark

```
└──(root㉿windows)-[~/home/hacking]
  └─# nmap -p 22 192.168.1.100 -sS
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:10
Nmap scan report for 192.168.1.100
Host is up (0.079s latency).
```

PORt STATE SERVICE

22/tcp filtered ssh

MAC Address: 34:xxxxxxxxxxxxxx (AzureWave Technology)

```
Nmap done: 1 IP address (1 host up) scanned in 1.18 seconds
-----
└──(root㉿windows)-[/home/hacking]
    └─# nmap -p 22 192.168.1.102 -sS
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:10
Nmap scan report for 192.168.1.102
Host is up (0.042s latency).

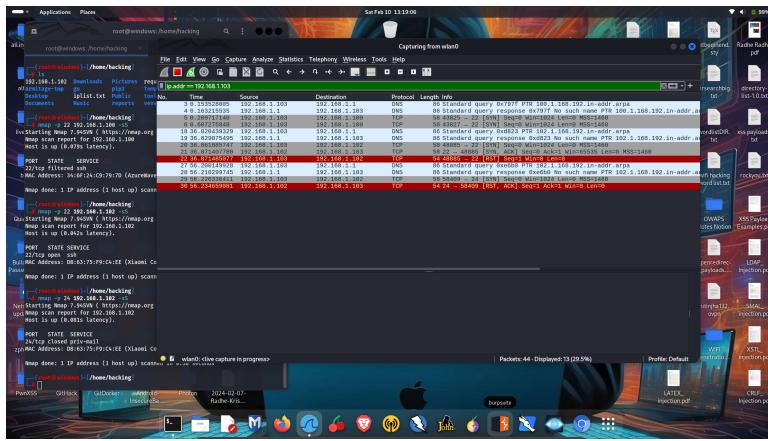
PORT      STATE SERVICE
22/tcp    open  ssh
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 0.29 seconds
-----
└──(root㉿windows)-[/home/hacking]
    └─# nmap -p 24 192.168.1.102 -sS
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:10
Nmap scan report for 192.168.1.102
Host is up (0.081s latency).

PORT      STATE SERVICE
24/tcp    closed priv-mail
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 0.30 seconds
-----
└──(root㉿windows)-[/home/hacking]
```

See the packet send and R... Wireshark



NUL scan

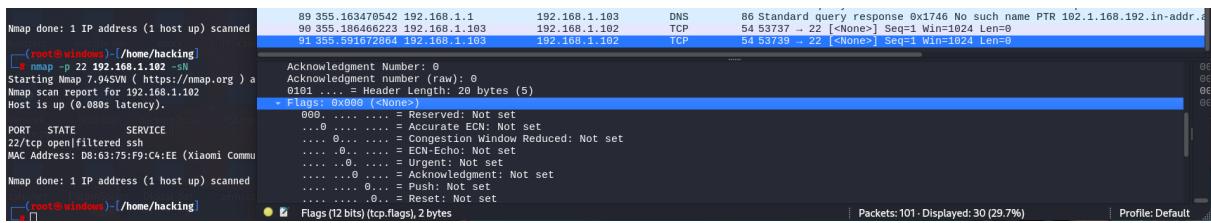
```
—(root㉿windows)-[/home/hacking]
└# nmap -p 22 192.168.1.102 -sN
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:22
Nmap scan report for 192.168.1.102
Host is up (0.080s latency).

PORT      STATE            SERVICE
22/tcp    open|filtered  ssh
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 1.11 seconds
```

```
PORT      STATE            SERVICE
22/tcp    open|filtered  ssh
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

Nmap done: 1 IP address (1 host up) scanned in 1.11 seconds



FIN SCAN

```
—(root㉿windows)-[/home/hacking]
└# nmap -p 22 192.168.1.102 -sF
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:20
Nmap scan report for 192.168.1.102
Host is up (0.0079s latency).
```

PORT	STATE	SERVICE
22/tcp	open filtered	ssh
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)		

Nmap done: 1 IP address (1 host up) scanned in 0.46 seconds

```

Nmap done: 1 IP address (1 host up) scanned
[...]
nmap -p 22 192.168.1.102 -sT
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:40
Nmap scan report for 192.168.1.102
Host is up (0.009s latency).

PORT      STATE SERVICE
22/tcp    open  ssh
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Commu
Nmap done: 1 IP address (1 host up) scanned
[...]

```

Timing and Performance scan NMap (0-5)

```

—(root㉿windows)-[/home/hacking]
└# nmap -p 22 192.168.1.102 -T2
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:40
Nmap scan report for 192.168.1.102
Host is up (0.099s latency).

```

PORT	STATE	SERVICE
22/tcp	open	ssh
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)		

Nmap done: 1 IP address (1 host up) scanned in 1.21 seconds

```

—(root㉿windows)-[/home/hacking]
└# nmap 192.168.1.102 -T5
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:40
Nmap scan report for 192.168.1.102
Host is up (0.022s latency).
Not shown: 997 closed tcp ports (reset)

PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

```

```
Nmap done: 1 IP address (1 host up) scanned in 1.92 seconds
```

Mac address spoofing

```
└─(root㉿windows)-[~/home/hacking]
└─# nmap --spoof-mac 0 -p 22 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:48
Spoofing MAC address 6B:46:E7:E7:C3:72 (No registered vendor)
Nmap scan report for 192.168.1.102
Host is up (0.011s latency).

PORT      STATE SERVICE
22/tcp    open  ssh
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

```
Nmap done: 1 IP address (1 host up) scanned in 0.31 seconds
```

```
# nmap --spoof-mac dell -p 22 192.168.1.102
```

decoy scan nmap

you can use the IP address decoy technique to avoid detection

```
—(root㉿windows)-[~/home/hacking]
└─# nmap -sS -D RND:2 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:50
Nmap scan report for 192.168.1.102
Host is up (0.034s latency).

Not shown: 997 closed tcp ports (reset)

PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 0.94 seconds
```

See the packet the wireshark the diffirent ip

```
root@windows:~/home/hacking
# nmap -sD RND2: 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:52 IST
Nmap scan report for 192.168.1.102
Host is up (0.022s latency).
Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:63:75:F9:C4:EE (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 2.37 seconds

root@windows:~/home/hacking
# nmap -sS -D RND2: 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:53 IST
Nmap scan report for 192.168.1.102
Host is up (0.024s latency).
Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:63:75:F9:C4:EE (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 0.94 seconds
```

Set IP any

```
└─(root㉿windows)-[~/home/hacking]
└─# nmap -sS -D 1.1.1.1,2.2.2.2 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:54
Nmap scan report for 192.168.1.102
Host is up (0.027s latency).

Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

Nmap done: 1 IP address (1 host up) scanned in 2.10 seconds

```
root@windows:~/home/hacking
# nmap -sS -D 1.1.1.1,2.2.2.2 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 13:57 IST
Nmap scan report for 192.168.1.102
Host is up (0.027s latency).
Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 2.10 seconds
```

```
MTU - nmap mtu scan send crafted mtu size (8*)
```

```
—(root㉿windows)-[/home/hacking]
└# nmap --mtu 16 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 14:12
Nmap scan report for 192.168.1.102
Host is up (0.015s latency).

Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 0.77 seconds
```

See Wireshark

MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)									
nmap done: 1 IP address (1 host up) scanned in 2.10 seconds									
—(root㉿windows)-[/home/hacking]									
└# nmap --mtu 16 192.168.1.102									
Starting Nmap 7.94SVN (https://nmap.org) at 2024-02-10 14:12									
Nmap scan report for 192.168.1.102									
Host is up (0.015s latency).									
Not shown: 997 closed tcp ports (reset)									
PORT		STATE	SERVICE						
22/tcp	open	ssh							
53/tcp	open	domain							
80/tcp	open	http							
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)									
nmap done: 1 IP address (1 host up) scanned in 0.77 seconds									

```
size def... 8
```

```
—(root㉿windows)-[/home/hacking]
└# nmap -f 192.168.1.102
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 14:12
Nmap scan report for 192.168.1.102
Host is up (0.017s latency).

Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

```
Nmap done: 1 IP address (1 host up) scanned in 2.36 seconds
```

see the wireshark

Idle Zombie Scan Nmap:

```
Nmap done: 1 IP address (1 host up) scanned in 0.77 seconds
[...]
Starting Nmap 7.04SVN ( https://nmap.org ) at 2024-02-10 14:18 IST
Nmap can report for 192.168.1.102
Host is up (0.017s latency).
Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE
80/tcp    open  http
MAC Address: D8:63:75:F9:C4:EE (Xiaomi Communications)
Nmap done: 1 IP address (1 host up) scanned in 2.36 seconds
[...]
```

Zombie Scan Before find the vulnb... machine in the network u

```
msf6 > search idle ip
```

Matching Modules

=====

#	Name	Disclosure Date	Rank
-	---	-----	-----
0	auxiliary/scanner/ip/repidseq		normal

Interact with a module by name or index. For example info 0, use auxiliary/scanner/ip/repidseq

```
msf6 > use 0
msf6 auxiliary(scanner/scanner/ip/repidseq) > show options
```

Module options (auxiliary/scanner/scanner/ip/repidseq):

Name	Current Setting	Required	Description
---	-----	-----	-----
INTERFACE	no	The name of the interface to use.	The name of the interface to use.
RHOSTS	yes	The target host(s),	The target host(s),
RPORT	80	yes	The target port

SNAPLEN	65535	yes	The number of bytes
THREADS	1	yes	The number of concurrent threads
TIMEOUT	500	yes	The reply read timeout in mil

View the full module info with the info, or info -d command.

```
msf6 auxiliary(scanner/ip/ipidseq) > set rhosts 192.168.1.0-255
rhosts => 192.168.1.0-255
msf6 auxiliary(scanner/ip/ipidseq) > exploit

[*] 192.168.1.1's IPID sequence class: All zeros
[*] Error: 192.168.1.4: Timeout::ExitException execution exception
[*] Error: 192.168.1.9: Timeout::ExitException execution exception
[*] Error: 192.168.1.10: Timeout::ExitException execution exception
[*] Error: 192.168.1.11: Timeout::ExitException execution exception
[*] Error: 192.168.1.14: Timeout::ExitException execution exception
[*] Error: 192.168.1.17: Timeout::ExitException execution exception
[*] Error: 192.168.1.20: Timeout::ExitException execution exception
^C[*] Caught interrupt from the console...
[*] Auxiliary module execution completed
```

Zombie Scan

```
└─(root㉿windows)-[/home/hacking]
└─# nmap -SI 192.168.1.1 192.168.1.102 -p 22
```

```
(kali㉿kali)-[~]
$ sudo nmap -SI 192.168.1.1 192.168.1.102 -p 22
[sudo] password for kali:
WARNING: Many people use -Pn w/Idlescan to prevent pings from their true IP. On the other hand, timing info Nmap gains from pings can allow for faster, more reliable scans.
Starting Nmap 7.92 ( https://nmap.org ) at 2022-07-30 23:44 IST
Idle scan using zombie 192.168.1.1 (192.168.1.1:443); Class: Incremental
Nmap scan report for 192.168.1.102
Host is up (0.013s latency).

PORT      STATE SERVICE
22/tcp    open  ftp
MAC Address: 00:0C:29:E1:45:A2 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 5.35 seconds
(kali㉿kali)-[~]
```

Source port Spoof

```
└─(root㉿windows) - [/home/hacking]
└─# nmap --source-port 53 192.168.1.102 -p 22
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 14:41
Nmap scan report for 192.168.1.102
Host is up (0.049s latency).

PORT      STATE SERVICE
22/tcp    open  ssh
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 0.28 seconds
```

NMAP SCRIPTING

FIND VULNERABILITIES USING NMAP SCRIPTS

- ▶ NSE INTRODUCTION
- ▶ NMAP SCRIPT CATEGORIES
- ▶ HANDS ON WITH NSE

NSE

- ▶ NSE stands for Nmap Scripting Engine
- ▶ Developed for following reasons:
 - ▶ Network Discovery
 - ▶ Classifier version detection of a service
 - ▶ Backdoor detection
 - ▶ Vulnerability Scanning

NMAP SCRIPT CATEGORIES

- ▶ auth All sorts of authentication and user privilege scripts
- ▶ brute Set of scripts for performing brute force attacks to guess access credentials
- ▶ default The most popular Nmap scripts, using -sC by default
- ▶ discovery Scripts related to network, service and host discovery
- ▶ dos Denial of service attack scripts used to test and perform DOS and floods
- ▶ exploit Used to perform service exploitation on different CVEs
- ▶ intrusive All the 'aggressive' scripts that cause a lot of network noise
- ▶ malware Malware detections and exploration scripts
- ▶ safe Safe and non-intrusive/noisy scripts
- ▶ version OS, service and software detection scripts
- ▶ vuln The Nmap vuln category includes vulnerability detection and exploitation scripts

Script locate path

```
└─(root㉿windows) - [/home/hacking]
  └─# ls /usr/share/nmap/scripts
    acarsd-info.nse
    address-info.nse
    afp-brute.nse
    afp-ls.nse
    afp-path-vuln.nse
    afp-serverinfo.nse
    ip-geolocation-ipinfo
    ip-geolocation-map-bi
    ip-geolocation-map-go
    ip-geolocation-map-km
    ip-geolocation-maxmin
    ip-https-discover.nse
```

```
afp-showmount.nse          ipidseq.nse
ajp-auth.nse               ipmi-brute.nse
ajp-brute.nse              ipmi-cipher-zero.nse
ajp-headers.nse            ipmi-version.nse
```

.....
.....

```
└─(root㉿windows)-[~/home/hacking]
└─# sudo nmap --script-updatedb
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 19:41
NSE: Updating rule database.
NSE: Script Database updated successfully.
Nmap done: 0 IP addresses (0 hosts up) scanned in 0.68 second
```

Find script

```
└─(root㉿windows)-[~/home/hacking]
└─# ls /usr/share/nmap/scripts | grep ssh
ssh2-enum-algos.nse
ssh-auth-methods.nse
ssh-brute.nse
ssh-hostkey.nse
ssh-publickey-acceptance.nse
ssh-run.nse
sshv1.nse
```

Script use

```
—(root㉿windows)-[~/home/hacking]
└─# nmap --script ssh-auth-methods.nse 192.168.0.76
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 20:00
Nmap scan report for 192.168.0.76
Host is up (0.011s latency).
Not shown: 997 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
```

```
| ssh-auth-methods:  
|   Supported authentication methods:  
|     publickey  
|_    password  
53/tcp open  domain  
80/tcp open  http  
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

Nmap done: 1 IP address (1 host up) scanned in 4.87 seconds

```
└──(root㉿windows)-[/home/hacking]  
└# nmap -p 22 --script ssh-auth-methods --script-args=root  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 20:00  
Nmap scan report for 192.168.0.76  
Host is up (0.21s latency).
```

```
PORt STATE SERVICE  
22/tcp open  ssh  
| ssh-auth-methods:  
|   Supported authentication methods:  
|     publickey  
|_    password  
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

Nmap done: 1 IP address (1 host up) scanned in 0.72 seconds

Directory find in the website using nse script

```
└──(root㉿windows)-[/home/hacking]  
└# ls /usr/share/nmap/scripts | grep http
```

```
└──(root㉿windows)-[/home/hacking]  
└# nmap --script http-enum.nse 192.168.0.76 -p80  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 20:10  
Nmap scan report for 192.168.0.76  
Host is up (0.18s latency).
```

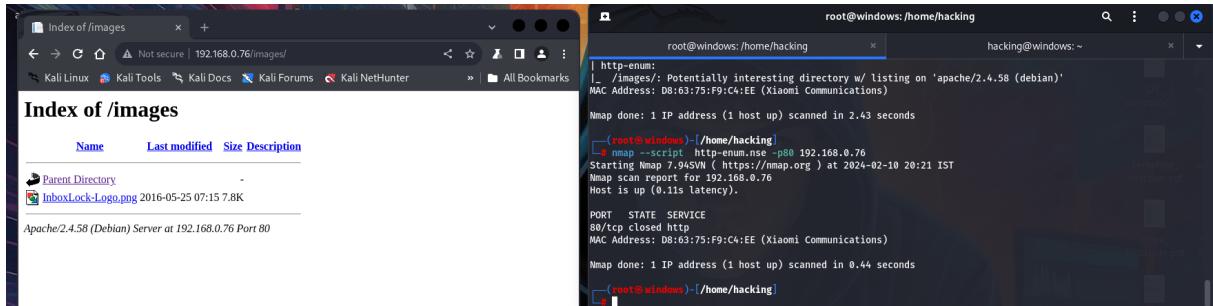
```
PORt STATE SERVICE
```

```

80/tcp open  http
| http-enum:
|_ /images/: Potentially interesting directory w/ listing on
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 2.64 seconds

```



Find the Email address and subdomain in the website -> http-g
This nse script run sudo/without sudo see the result both

```

└─(root㉿windows)-[/home/hacking]
  └─# nmap --script http-grep.nse -p80 192.168.0.76
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-10 20:50
Nmap scan report for 192.168.0.76
Host is up (0.15s latency).

PORT      STATE SERVICE
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

```

xyz@admin.com
tsghs@gsj.com
hsudgb@hdjdb.com

Nmap done: 1 IP address (1 host up) scanned in 16.40 seconds

Password crack ssh, telnet, FTP like

```

└─(root㉿windows)-[/home/hacking]
  └─# ls /usr/share/nmap/scripts | grep ftp

```

```

└─(root㉿windows)-[/home/hacking]
└─# nmap --script ftp-brute.nse -p21 192.168.1.101 -T5
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-11 15:00

```

Check anon Login

```

─(hacking㉿windows)-[~]
└─$ nmap --script ftp-anon.nse -p21 192.168.1.101
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-11 15:30
Nmap scan report for 192.168.1.101
Host is up (0.0076s latency).

PORT      STATE SERVICE
21/tcp    open  ftp
|  ftp-anon: Anonymous FTP login allowed (FTP code 230)
|_Can't get directory listing: PASV failed: 500 OOPS: socket

Nmap done: 1 IP address (1 host up) scanned in 0.71 seconds

```

Multiple script run like Discovery all script run
Category = Discovery

```

└─(root㉿windows)-[/home/hacking]
└─# nmap --script discovery 192.168.1.101
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-11 15:10
Pre-scan script results:
|_http-robtex-shared-ns: *TEMPORARILY DISABLED* due to change
| targets-asn:
|_ targets-asn.asn is a mandatory parameter
| broadcast-igmp-discovery:
|   192.168.1.1
|     Interface: wlan0
|     Version: 2
|     Group: 224.0.1.178
|     Description: IEEE IAPP
|   192.168.1.1

```

```

|   Interface: wlan0
|   Version: 2
|   Group: 239.255.255.250
|       Description: Organization-Local Scope (rfc2365)
|_ Use the newtargets script-arg to add the results as targets
| targets-ipv6-multicast-mld:
|     IP: fe80::a791:b4a2:942c:5eeb  MAC: 34:6f:24:c9:79:7d  IF
|     IP: fe80::da63:75ff:fef9:c4ee  MAC: d8:63:75:f9:c4:ee  IF
|     IP: fe80::e0e:76ff:fe4d:7152  MAC: 0c:0e:76:4d:71:52  IF

|
|_ Use --script-args=newtargets to add the results as target
| ipv6-multicast-mld-list:
|   fe80::da63:75ff:fef9:c4ee:
|       device: wlan0
|       mac: d8:63:75:f9:c4:ee
|       multicast_ips:
|           ff02::1:fff9:c4ee          (NDP Solicited-node)
|           ff02::1:ff29:e13e         (Solicited-Node Address)
|           ff02::1:ff29:e13e         (Solicited-Node Address)
|   fe80::e0e:76ff:fe4d:7152:
|       device: wlan0
|       mac: 0c:0e:76:4d:71:52
|       multicast_ips:
|           ff02::1:ff4d:7152        (NDP Solicited-node)
|   fe80::a791:b4a2:942c:5eeb:
|       device: wlan0
|       mac: 34:6f:24:c9:79:7d
|       multicast_ips:
|           ff02::1:ff2c:5eeb        (NDP Solicited-node)
|           ff02::1:ffe7:e443        (Solicited-Node Address)
|           ff02::1:ff26:294d        (Solicited-Node Address)
|           ff02::1:ffe7:e443        (Solicited-Node Address)
|_   ff02::1:ff26:294d        (Solicited-Node Address)
| targets-ipv6-multicast-invalid-dst:
|     IP: fe80::e0e:76ff:fe4d:7152  MAC: 0c:0e:76:4d:71:52  IF
|     IP: fe80::da63:75ff:fef9:c4ee  MAC: d8:63:75:f9:c4:ee  IF
|_ Use --script-args=newtargets to add the results as target
| _hostmap-robtex: *TEMPORARILY DISABLED* due to changes in Ro

```

```
| targets-ipv6-multicast-echo:  
|   IP: fe80::e0e:76ff:fe4d:7152   MAC: 0c:0e:76:4d:71:52  IF:  
|   IP: fe80::da63:75ff:fef9:c4ee  MAC: d8:63:75:f9:c4:ee  IF:  
|_ Use --script-args=newtargets to add the results as target  
Nmap scan report for 192.168.1.101  
Host is up (0.018s latency).  
Not shown: 996 closed tcp ports (reset)  
Bug in http-security-headers: no string output.  
PORT      STATE SERVICE  
21/tcp    open  ftp  
22/tcp    open  ssh  
| ssh2-enum-algos:  
|   kex_algorithms: (12)  
|   server_host_key_algorithms: (4)  
|   encryption_algorithms: (6)  
|   mac_algorithms: (10)  
|_  compression_algorithms: (2)  
| ssh-hostkey:  
|   256 f6:9c:d1:0f:4a:f5:79:bd:8a:c5:00:21:ed:9d:6a:56 (ECDSA)  
|_  256 c4:69:86:59:8d:32:2f:e2:ff:ec:8d:c9:95:54:f1:dd (ED25519)  
|_banner: SSH-2.0-OpenSSH_9.6p1 Debian-3  
53/tcp    open  domain  
|_dns-nsec3-enum: Can't determine domain for host 192.168.1.101  
|_dns-nsec-enum: Can't determine domain for host 192.168.1.101  
80/tcp    open  http  
|_http-chrono: Request times for /; avg: 297.88ms; min: 232.8ms  
| http-internal-ip-disclosure:  
|_ Internal IP Leaked: 127.0.0.1  
| http-useragent-tester:  
|   Status for browser useragent: 200  
|   Allowed User Agents:  
|     Mozilla/5.0 (compatible; Nmap Scripting Engine; h  
.....  
.....  
.....  
.....
```

Telnet all script Run

```
└─(root㉿windows)-[~/home/hacking]
└─# nmap --script telnet* 192.168.1.101
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-11 15:34
Nmap scan report for 192.168.1.101
Host is up (0.020s latency).
Not shown: 996 closed tcp ports (reset)
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)

Nmap done: 1 IP address (1 host up) scanned in 0.73 seconds
```

wordpress plugins theams version Find

```
—(root㉿windows)-[~/home/hacking]
└─# ls /usr/share/nmap/scripts | grep wordpress
http-wordpress-brute.nse
http-wordpress-enum.nse
http-wordpress-users.nse
```

Find SQL vuln URL in the Target

```
—(root㉿windows)-[~/home/hacking]
└─# ls /usr/share/nmap/scripts | grep sql

—(root㉿windows)-[~/home/hacking]
└─# nmap --script http-sql-injection.nse -p 80 testphp.vulnweb.com
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-11 15:40
Nmap scan report for testphp.vulnweb.com (44.228.249.3)
```

```
Host is up (0.31s latency).
rDNS record for 44.228.249.3: ec2-44-228-249-3.us-west-2.comp
```

```
PORt STATE SERVICE
80/tcp open http
| http-sql-injection:
|   Possible sqli for queries:
|     http://testphp.vulnweb.com:80/search.php?test=query%27%
|     http://testphp.vulnweb.com:80/search.php?test=query%27%
|     http://testphp.vulnweb.com:80/search.php?test=query%27%
|     http://testphp.vulnweb.com:80/search.php?test=query%27%
```

.....
.....
.....

Imp

Target website/ip check The cve vulnerability available
Vulscan Github load in script Database

```
└─(root㉿windows)-[/home/hacking/Desktop]
└# nmap -sV --script=vulscan/vulscan.nse 192.168.1.101
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-11 16:00
Nmap scan report for 192.168.1.101
Host is up (0.016s latency).
Not shown: 996 closed tcp ports (reset)
PORT      STATE SERVICE      VERSION
21/tcp    open  ftp?
| fingerprint-strings:
|   Help:
|_    421 There are too many connections from your internet a
22/tcp    open  ssh          OpenSSH 9.6p1 Debian 3 (protocol 2.0)
| vulscan: VulDB - https://vuldb.com:
| No findings
|
```

.....
.....
.....

<https://github.com/scipag/vulscan>

PHP version check on Target website

```
—(root㉿windows)-[~/home/hacking/Desktop]
└# ls /usr/share/nmap/scripts | grep php
http-cakephp-version.nse
http-phpmyadmin-dir-traversal.nse
http-phpself-xss.nse
http-php-version.nse
```

```
—(root㉿windows)-[~/home/hacking/Desktop]
└# nmap --script http-php-version.nse -p 80 testphp.vulnweb.com
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-11 16:10
Nmap scan report for testphp.vulnweb.com (44.228.249.3)
Host is up (0.31s latency).
rDNS record for 44.228.249.3: ec2-44-228-249-3.us-west-2.compute.amazonaws.com
```

PORT	STATE	SERVICE
80/tcp	open	http
		_http-php-version: Version from header x-powered-by: PHP/5.6

Vuln script = all vulnerability According to This script

```
—(root㉿windows)-[~/home/hacking/Desktop]
└# nmap --script vuln 192.168.1.101
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-11 16:10
Pre-scan script results:
| broadcast-avahi-dos:
```

```
| Discovered hosts:
|   224.0.0.251
| After NULL UDP avahi packet DoS (CVE-2011-1002).
|_ Hosts are all up (not vulnerable).

Nmap scan report for 192.168.1.101
Host is up (0.0072s latency).
Not shown: 996 closed tcp ports (reset)
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
|_http-stored-xss: Couldn't find any stored XSS vulnerabilities
| http-internal-ip-disclosure:
|_ Internal IP Leaked: 127.0.0.1
| http-dombased-xss:
| Spidering limited to: maxdepth=3; maxpagecount=20; withinfo
|   Found the following indications of potential DOM based XSS
```

CVE -

The mission of the CVE® Program is to identify, define, and catalog publicly disclosed cybersecurity vulnerabilities.

➡ <https://cve.mitre.org/>

All This types of script run *

```
—(root㉿windows)-[/home/hacking/Desktop]
└# nmap --script http-vuln* 192.168.1.101
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-11 16:20
Nmap scan report for 192.168.1.101
Host is up (0.019s latency).
Not shown: 996 closed tcp ports (reset)
PORT      STATE SERVICE
21/tcp    open  ftp
```

```
22/tcp open  ssh  
53/tcp open  domain  
80/tcp open  http  
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

Server location Find

```
—(root㉿windows)-[~/home/hacking/Desktop]  
└# nmap --script ip-geolocation-* facebook.com  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-11 16:29  
NSE: [ip-geolocation-maxmind] You must specify a Maxmind data  
NSE: [ip-geolocation-maxmind] Download the database from http  
Nmap scan report for facebook.com (157.240.16.35)  
Host is up (0.15s latency).  
Other addresses for facebook.com (not scanned): 2a03:2880:f12  
rDNS record for 157.240.16.35: edge-star-mini-shv-01-bom1.fac  
Not shown: 998 filtered tcp ports (no-response)  
PORT      STATE SERVICE  
80/tcp    open  http  
443/tcp   open  https  
  
Host script results:  
| ip-geolocation-geoplugin: coordinates: 19.0748, 72.8856  
| _location: Maharashtra, India  
  
Post-scan script results:  
Bug in ip-geolocation-map-bing: no string output.  
Bug in ip-geolocation-map-google: no string output.  
Bug in ip-geolocation-map-kml: no string output.  
Nmap done: 1 IP address (1 host up) scanned in 26.25 seconds
```

```
nmap script save report format  
types - txt, xml
```

```
—(root㉿windows)-[~/home/hacking/Desktop]  
└# nmap -oN samplereport.txt 192.168.1.101  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-11 16:30
```

```
Nmap scan report for 192.168.1.101
Host is up (0.014s latency).
Not shown: 996 closed tcp ports (reset)
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

Nmap done: 1 IP address (1 host up) scanned in 0.68 seconds

Create report on xml formate

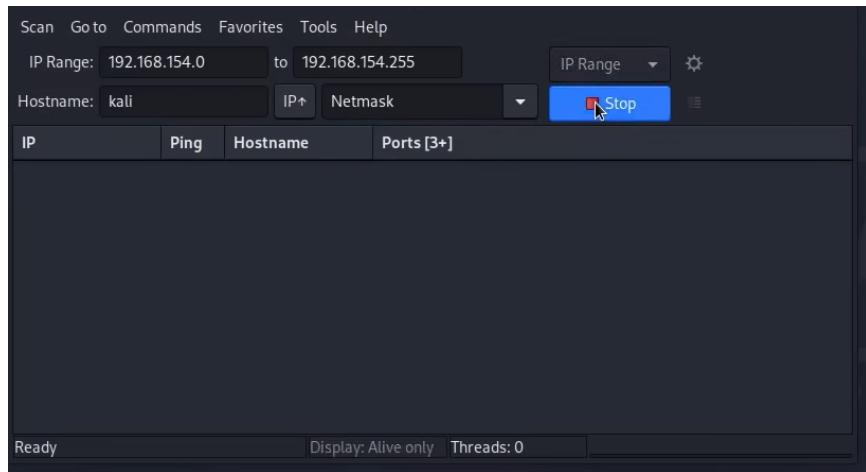
```
—(root㉿windows)-[/home/hacking/Desktop]
└# nmap -oX report 192.168.1.101
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-11 16:41
Nmap scan report for 192.168.1.101
Host is up (0.021s latency).
Not shown: 996 closed tcp ports (reset)
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
53/tcp    open  domain
80/tcp    open  http
MAC Address: D8:xxxxxxxxxxxxxx (Xiaomi Communications)
```

Nmap done: 1 IP address (1 host up) scanned in 0.69 seconds

Angry ip scan

Add range and see all ip scan and see the machine

<https://angryip.org/>



Zmap

What is the difference between ZMap and Nmap?

Nmap: Nmap is widely used for network inventory,

vulnerability assessment, and penetration testing on smaller

ZMap: ZMap is designed for large-scale internet-wide scans, d
enabling the analysis of a significant portion of the interne

Solarwinds network mapper:

What is SolarWinds network topology mapper?

SolarWinds Network Topology Mapper (NTM) shows nodes on your
indicates and updates status both for the nodes and the netwo
scalable maps with customizable icons.

RAHUL-NJ