

Lab 4 – Network Mapping

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Introduction

In this lab, get familiar with network scanning techniques using Nmap.

Pre-Lab

For this lab, you will require Kali Linux and Windows machines,

Practical

1. NMAP

Open a linux terminal. Simply type “nmap” and take note of the syntax and available options

Perform a simple ping scan of your Kali VM (via localhost address or IP address) and note

```
File Actions Edit View Help
(kali@kali)-[~]
$ nmap
Nmap 7.92 ( https://nmap.org )
Usage: nmap [Scan Type(s)] [Options] {target specification}
TARGET SPECIFICATION:
  Can pass hostnames, IP addresses, networks, etc.
  Ex: scanme.nmap.org, microsoft.com/24, 192.168.0.1; 10.0.0-255.1-254
  -iL <inputfilename>: Input from list of hosts/networks
  -iR <num hosts>: Choose random targets
  --exclude <host1[,host2][,host3],...>: Exclude hosts/networks
  --excludefile <exclude_file>: Exclude list from file
HOST DISCOVERY:
  -sL: List Scan - simply list targets to scan
  -sn: Ping Scan - disable port scan
  -Pn: Treat all hosts as online -- skip host discovery
  -PS/PA/PY[portlist]: TCP SYN/ACK, UDP or SCTP discovery to given ports
  -PE/PP/PM: ICMP echo, timestamp, and netmask request discovery probes
  -PO[protocol list]: IP Protocol Ping
  -n/-R: Never do DNS resolution/Always resolve [default: sometimes]
  --dns-servers <serv1[,serv2],...>: Specify custom DNS servers
  --system-dns: Use OS's DNS resolver
  --traceroute: Trace hop path to each host
SCAN TECHNIQUES:
  -sS/sT/sA/sW/sM: TCP SYN/Connect()/ACK/Window/Maimon scans
  -sU: UDP Scan
  -sN/sF/sX: TCP Null, FIN, and Xmas scans
  --scanflags <flags>: Customize TCP scan flags
  -sI <zombie host[:probeport]>: Idle scan
  -sV/sZ: SCTP INIT/COOKIE-ECHO scans
  -sO: IP protocol scan
  -b <FTP relay host>: FTP bounce scan
PORT SPECIFICATION AND SCAN ORDER:
  -p <port ranges>: Only scan specified ports
    Ex: -p22; -p1-65535; -p U:53,111,137,T:21-25,80,139,8080,S:9
  --exclude-ports <port ranges>: Exclude the specified ports from scanning
  -F: Fast mode - Scan fewer ports than the default scan
  -r: Scan ports consecutively - don't randomize
  --top-ports <number>: Scan <number> most common ports
  --port-ratio <ratio>: Scan ports more common than <ratio>
SERVICE/VERSION DETECTION:
  -sV: Probe open ports to determine service/version info
  --version-intensity <level>: Set from 0 (light) to 9 (try all probes)
  --version-light: Limit to most likely probes (intensity 2)
  --version-all: Try every single probe (intensity 9)
  --version-trace: Show detailed version scan activity (for debugging)
SCRIPT SCAN:
  -sC: equivalent to --script-default
  --script=<Lua scripts>: <Lua scripts> is a comma separated list of
    directories, script-files or script-categories
  --script-args=<n1-v1[,n2-v2,...]>: provide arguments to scripts
  --script-args-file=filename: provide NSE script args in a file
```

```
File Actions Edit View Help
OS DETECTION:
  -O: Enable OS detection
  --osscan-limit: Limit OS detection to promising targets
  --osscan-guess: Guess OS more aggressively
TIMING AND PERFORMANCE:
  Options which take <time> are in seconds, or append 'ms' (milliseconds),
  's' (seconds), 'm' (minutes), or 'h' (hours) to the value (e.g. 30m).
  -T<0-5>: Set timing template (higher is faster)
  --min-hostgroup <max-hostgroup> <size>: Parallel host scan group sizes
  --min-parallelism/max-parallelism <numprobes>: Probe parallelization
  --min-rtt-timeout/max-rtt-timeout/initial-rtt-timeout <time>: Specifies
    probe round trip time.
  --max-retries <tries>: Caps number of port scan probe retransmissions.
  --host-timeout <time>: Give up on target after this long
  --scan-delay/--max-scan-delay <time>: Adjust delay between probes
  --min-rate <number>: Send packets no slower than <number> per second
  --max-rate <number>: Send packets no faster than <number> per second
FIREWALL/IDS EVASION AND SPOOFING:
  -f; --mtu <val>: fragment packets (optionally w/given MTU)
  -D <decoy1,decoy2[,ME],...>: Cloak a scan with decoys
  -S <IP Address>: Spoof source address
  -e <iface>: Use specified interface
  -g/--source-port <portnum>: Use given port number
  --proxies <url1[,url2],...>: Relay connections through HTTP/SOCKS4 proxies
  --data <hex string>: Append a custom payload to sent packets
  --data-string <string>: Append a custom ASCII string to sent packets
  --data-length <num>: Append random data to sent packets
  --ip-options <options>: Send packets with specified ip options
  --ttl <val>: Set IP time-to-live field
  --spoof-mac <mac address/prefix/vendor name>: Spoof your MAC address
  --badsum: Send packets with a bogus TCP/UDP/SCTP checksum
OUTPUT:
  -oN/-oX/-oS/-oG <file>: Output scan in normal, XML, sIcRpt Kldd13,
    and Grepable format, respectively, to the given filename.
  -oA <basename>: Output in the three major formats at once
  -v: Increase verbosity level (use -vv or more for greater effect)
  -d: Increase debugging level (use -dd or more for greater effect)
  --reason: Display the reason a port is in a particular state
  --open: Only show open (or possibly open) ports
  --packet-trace: Show all packets sent and received
  --iflist: Print host interfaces and routes (for debugging)
  --append-output: Append to rather than clobber specified output files
  --resume <filename>: Resume an aborted scan
  --noninteractive: Disable runtime interactions via keyboard
  --stylesheet <path/URL>: XSL stylesheet to transform XML output to HTML
  --webxml: Reference stylesheet from Nmap.Org for more portable XML
  --no-stylesheet: Prevent associating of XSL stylesheet w/XML output
MISC:
  -6: Enable IPv6 scanning
  -A: Enable OS detection, version detection, script scanning, and traceroute
  --datadir <dirname>: Specify custom Nmap data file location
```

Perform a simple ping scan of your Kali VM (via localhost address or IP address) and note what information you get back.

```
(kali@kali)-[~]
$ ping 192.168.110.164
PING 192.168.110.164 (192.168.110.164) 56(84) bytes of data.
64 bytes from 192.168.110.164: icmp_seq=1 ttl=64 time=1.56 ms
64 bytes from 192.168.110.164: icmp_seq=2 ttl=64 time=0.091 ms
64 bytes from 192.168.110.164: icmp_seq=3 ttl=64 time=0.036 ms
64 bytes from 192.168.110.164: icmp_seq=4 ttl=64 time=0.063 ms
64 bytes from 192.168.110.164: icmp_seq=5 ttl=64 time=0.061 ms
64 bytes from 192.168.110.164: icmp_seq=6 ttl=64 time=0.068 ms
64 bytes from 192.168.110.164: icmp_seq=7 ttl=64 time=0.048 ms
64 bytes from 192.168.110.164: icmp_seq=8 ttl=64 time=0.070 ms
64 bytes from 192.168.110.164: icmp_seq=9 ttl=64 time=0.039 ms
64 bytes from 192.168.110.164: icmp_seq=10 ttl=64 time=0.046 ms
64 bytes from 192.168.110.164: icmp_seq=11 ttl=64 time=0.045 ms
64 bytes from 192.168.110.164: icmp_seq=12 ttl=64 time=0.078 ms
64 bytes from 192.168.110.164: icmp_seq=13 ttl=64 time=0.041 ms
64 bytes from 192.168.110.164: icmp_seq=14 ttl=64 time=0.076 ms
64 bytes from 192.168.110.164: icmp_seq=15 ttl=64 time=0.068 ms
64 bytes from 192.168.110.164: icmp_seq=16 ttl=64 time=0.056 ms
64 bytes from 192.168.110.164: icmp_seq=17 ttl=64 time=0.054 ms
64 bytes from 192.168.110.164: icmp_seq=18 ttl=64 time=0.062 ms
64 bytes from 192.168.110.164: icmp_seq=19 ttl=64 time=0.063 ms
64 bytes from 192.168.110.164: icmp_seq=20 ttl=64 time=0.077 ms
64 bytes from 192.168.110.164: icmp_seq=21 ttl=64 time=0.089 ms
64 bytes from 192.168.110.164: icmp_seq=22 ttl=64 time=0.055 ms
64 bytes from 192.168.110.164: icmp_seq=23 ttl=64 time=0.069 ms
64 bytes from 192.168.110.164: icmp_seq=24 ttl=64 time=0.051 ms
64 bytes from 192.168.110.164: icmp_seq=25 ttl=64 time=0.084 ms
64 bytes from 192.168.110.164: icmp_seq=26 ttl=64 time=0.061 ms
64 bytes from 192.168.110.164: icmp_seq=27 ttl=64 time=0.072 ms
64 bytes from 192.168.110.164: icmp_seq=28 ttl=64 time=0.068 ms
64 bytes from 192.168.110.164: icmp_seq=29 ttl=64 time=0.064 ms
64 bytes from 192.168.110.164: icmp_seq=30 ttl=64 time=0.076 ms
64 bytes from 192.168.110.164: icmp_seq=31 ttl=64 time=0.078 ms
64 bytes from 192.168.110.164: icmp_seq=32 ttl=64 time=0.064 ms
64 bytes from 192.168.110.164: icmp_seq=33 ttl=64 time=0.063 ms
64 bytes from 192.168.110.164: icmp_seq=34 ttl=64 time=0.066 ms
64 bytes from 192.168.110.164: icmp_seq=35 ttl=64 time=0.063 ms
64 bytes from 192.168.110.164: icmp_seq=36 ttl=64 time=0.065 ms
64 bytes from 192.168.110.164: icmp_seq=37 ttl=64 time=0.065 ms
64 bytes from 192.168.110.164: icmp_seq=38 ttl=64 time=0.048 ms
64 bytes from 192.168.110.164: icmp_seq=39 ttl=64 time=0.075 ms
64 bytes from 192.168.110.164: icmp_seq=40 ttl=64 time=0.066 ms
64 bytes from 192.168.110.164: icmp_seq=41 ttl=64 time=0.085 ms
^C
--- 192.168.110.164 ping statistics ---
41 packets transmitted, 41 received, 0% packet loss, time 40921ms
rtt min/avg/max/mdev = 0.036/0.120/1.560/0.257 ms
```

Perform a TCP Connect scan of your Kali VM (via localhost address or IP address) and note what information you get back.

- To perform a TCP connect scan use flag `-sT`

```
(kali@kali)-[~]
$ nmap -sT 192.168.110.164
Starting Nmap 7.92 ( https://nmap.org ) at 2023-10-05 15:43 EDT
Nmap scan report for 192.168.110.164
Host is up (0.00017s latency).
All 1000 scanned ports on 192.168.110.164 are in ignored states.
Not shown: 1000 closed tcp ports (conn-refused)

Nmap done: 1 IP address (1 host up) scanned in 0.13 seconds
```

- To perform a TCP connect scan use flag `-sT` and `-sV` for version identification

Perform an Aggressive TCP Connect scan across the entire virtual network range and note the results.

```
kali@kali:~$ nmap -sT -A 192.168.110.164/24
Starting Nmap 7.92 ( https://nmap.org ) at 2023-10-05 15:54 EDT
Nmap scan report for 192.168.110.2
Host is up (0.00019s latency).
Not shown: 999 closed tcp ports (conn-refused)
PORT      STATE SERVICE VERSION
53/tcp    open  domain   (unknown banner: [SECURED])
| dns-nsid:
|_ NSID: alex-cns20 (616c65f78d636e733230)
|_ id.server: alex-cns20
|_ bind.version: [SECURED]
|_ fingerprint-strings:
|_ DNSVersionBindReqTCP:
|_ version
|_ bind
|_ [SECURED]
|_ service unrecognized despite returning data. If you know the service/version, please submit the following fingerprint at https://nmap.org/cgi-bin/submit.cgi?new-service :
SF:Port83-TCP-V:7.92ai-7ZND-10/SKTlme+65FI4AZP-x86_64-pc-linux-gnuxr(DNSV
SF:ersionBindReqTCP,36,"x004\0x06\x81x80\0x01\0x01\0\0\0\0x07version
SF:\x04bind\0\0x10\0x03xc0\0xc0\0x10\0x03\0\0\0\0\0\n\t[SECURED\]");
Nmap scan report for 192.168.110.163
Host is up (0.00028s latency).
Not shown: 987 closed tcp ports (conn-refused)
PORT      STATE SERVICE VERSION
135/tcp    open  msrpc     Microsoft Windows RPC
139/tcp    open  netbios-ssn Microsoft Windows netbios-ssn
445/tcp    open  microsoft-ds Windows 7 Enterprise 7600 microsoft-ds (workgroup: WORKGROUP)
554/tcp    open  rtsp?     Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
2869/tcp   open  http      Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
3389/tcp    open  ssl/ms-wbt-server?
|_ ssl-date: 2023-10-05T19:57:59+00:00; 0s from scanner time.
|_ ssl-cert: Subject: commonName=WIN-10SVFTJ7ISE
| Not valid before: 2023-09-06T18:52:16
| Not valid after: 2024-03-07T18:52:16
|_ 10243/tcp open http      Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
|_ http-title: Not Found
|_ http-server-header: Microsoft-HTTPAPI/2.0
49152/tcp   open  msrpc     Microsoft Windows RPC
49153/tcp   open  msrpc     Microsoft Windows RPC
49154/tcp   open  msrpc     Microsoft Windows RPC
49155/tcp   open  msrpc     Microsoft Windows RPC
49156/tcp   open  msrpc     Microsoft Windows RPC
49157/tcp   open  msrpc     Microsoft Windows RPC
Service Info: Host: WIN-10SVFTJ7ISE; OS: Windows; CPE: cpe:/o:microsoft:windows

Host script results:
| smb-security-mode:
|_ account_used: guest
```

```

kali@kali: ~
File Actions Edit View Help

Host script results:
| smb-security-mode:
|   account_used: guest
|   authentication_level: user
|   challenge_response: supported
|_ message_signing: disabled (dangerous, but default)
|_ clock-skew: mean: 1h00m00s, deviation: 2h00m01s, median: 0s
| smb-os-discovery:
|   OS: Windows 7 Enterprise 7600 (Windows 7 Enterprise 6.1)
|   OS CPE: cpe:/o:microsoft:windows_7::-
|   Computer name: WIN-10SVFTJ7I5E
|   NetBIOS computer name: WIN-10SVFTJ7I5E\x00
|   Workgroup: WORKGROUP\x00
|_ System time: 2023-10-05T15:56:56-04:00
|_ nbstat: NetBIOS name: WIN-10SVFTJ7I5E, NetBIOS user: <unknown>, NetBIOS MAC: 00:0c:29:98:65:fd (VMware)
| smb2-time:
|   date: 2023-10-05T19:56:56
|   start_date: 2023-10-02T14:42:26
| smb2-security-mode:
|   2.1:
|_ Message signing enabled but not required

Nmap scan report for 192.168.110.164
Host is up (0.000047s latency).
All 1000 scanned ports on 192.168.110.164 are in ignored states.
Not shown: 1000 closed tcp ports (conn-refused)

Nmap scan report for 192.168.110.165
Host is up (0.00026s latency).
Not shown: 992 closed tcp ports (conn-refused)
PORT      STATE SERVICE      VERSION
21/tcp    open  ftp          Microsoft ftpd
| ftp-syst:
|   SYST: Windows_NT
|   STAT:
|_ Microsoft FTP Service status:
|   Connected to 192.168.110.164
|   Logged in as IEUser@
|   TYPE: ASCII, FORM: Nonprint; STRucture: File; transfer MODE: STREAM
|   No data connection
|_ End of status.
|_ ftp-anon: Anonymous FTP login allowed (FTP code 230)
25/tcp    open  smtp         Microsoft ESMTp 6.0.2600.2180
| smtp-command: win-xp Hello [192.168.110.164], SIZE 2097152, PIPELINING, DSN, ENHANCEDSTATUSCODES, 8bitmime, BINARYMIME, CHUNKING, VRFY, OK
|_ This server supports the following commands: HELO EHLO STARTTLS RCPT DATA RSET MAIL QUIT HELP AUTH BDAT VRFY
80/tcp    open  http         Microsoft IIS httpd 5.1
|_ http-webdav-scan:
|   Allowed Methods: OPTIONS, TRACE, GET, HEAD, COPY, PROPFIND, SEARCH, LOCK, UNLOCK
|   Server Type: Microsoft-IIS/5.1
|   Server Date: Thu, 05 Oct 2023 19:56:56 GMT


```

```

kali@kali: ~
File Actions Edit View Help

|   Allowed Methods: OPTIONS, TRACE, GET, HEAD, COPY, PROPFIND, SEARCH, LOCK, UNLOCK
|   Server Type: Microsoft-IIS/5.1
|   Server Date: Thu, 05 Oct 2023 19:56:56 GMT
|   WebDAV type: Unknown
|_ Public Options: OPTIONS, TRACE, GET, HEAD, DELETE, PUT, POST, COPY, MOVE, MKCOL, PROPFIND, PROPPATCH, LOCK, UNLOCK, SEARCH
|_ http-methods:
|_ Potentially risky methods: TRACE COPY PROPFIND SEARCH LOCK UNLOCK DELETE PUT MOVE MKCOL PROPPATCH
|_ http-title:
|_ title: \x00
|_ \x00
|_ http-server-header: Microsoft-IIS/5.1
135/tcp   open  msrpc        Microsoft Windows RPC
139/tcp   open  netbios-ssn  Microsoft Windows netbios-ssn
443/tcp   open  https?
445/tcp   open  microsoft-ds Windows XP microsoft-ds
1025/tcp  open  msrpc        Microsoft Windows RPC
Service Info: Host: win-xp; OS: Windows, Windows XP; CPE: cpe:/o:microsoft:windows, cpe:/o:microsoft:windows_xp

Host script results:
|_ smb2-time: Protocol negotiation failed (SMB2)
| ms-sql-info:
|   Windows server name: WIN-XP
|   192.168.110.165\SQLEXPRESS:
|   Instance name: SQLEXPRESS
|   Version:
|     name: Microsoft SQL Server 2005 RTM
|     Product: Microsoft SQL Server 2005
|     Service pack level: RTM
|     TCP port: 1433
|     Clustered: false
|_ clock-skew: mean: 2h00m00s, deviation: 2h49m43s, median: 0s
| smb-security-mode:
|   account_used: guest
|   authentication_level: user
|   challenge_response: supported
|_ message_signing: disabled (dangerous, but default)
| smb-os-discovery:
|   OS: Windows XP (Windows 2000 LAN Manager)
|   OS CPE: cpe:/o:microsoft:windows_xp::-
|   Computer name: win-xp
|   NetBIOS computer name: WIN-XP\x00
|   Workgroup: WORKGROUP\x00
|_ System time: 2023-10-05T15:56:55-04:00
|_ nbstat: NetBIOS name: WIN-XP, NetBIOS user: <unknown>, NetBIOS MAC: 00:0c:29:90:64:48 (VMware)

Post-scan script results:
| clock-skew:
|   1h00m00s:
|   192.168.110.163
|   192.168.110.165
|_
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .


```

Perform a Paranoid TCP SYN scan against a specific target.

- To perform paranoid TCP SYN scan use flag `-sS` and `-T0` for selecting paranoid scan. This makes the scan slower having longer delays between packets to avoid detection by IDS or IPS or any security devices.

```
(kali@kali)-[~]  
$ sudo nmap -sS -T0 192.168.110.163  
[sudo] password for kali:  
Starting Nmap 7.92 ( https://nmap.org ) at 2023-10-05 16:17 EDT
```

Perform a Normal TCP SYN scan with version identification on a specific target and output to a file

- To perform a normal TCP scan with version identification use flag `-sS` and `-sV`. Use `-T3` to set the scan speed to normal. `-oA scanresult_filename` use to output result into file. Three files gets created using this flag –
 - o a plain text file (scanresult_filename.nmap),
 - o an XML file (scanresult_filename.xml), and a greppable file
 - o (scanresult_filename.gnmap)

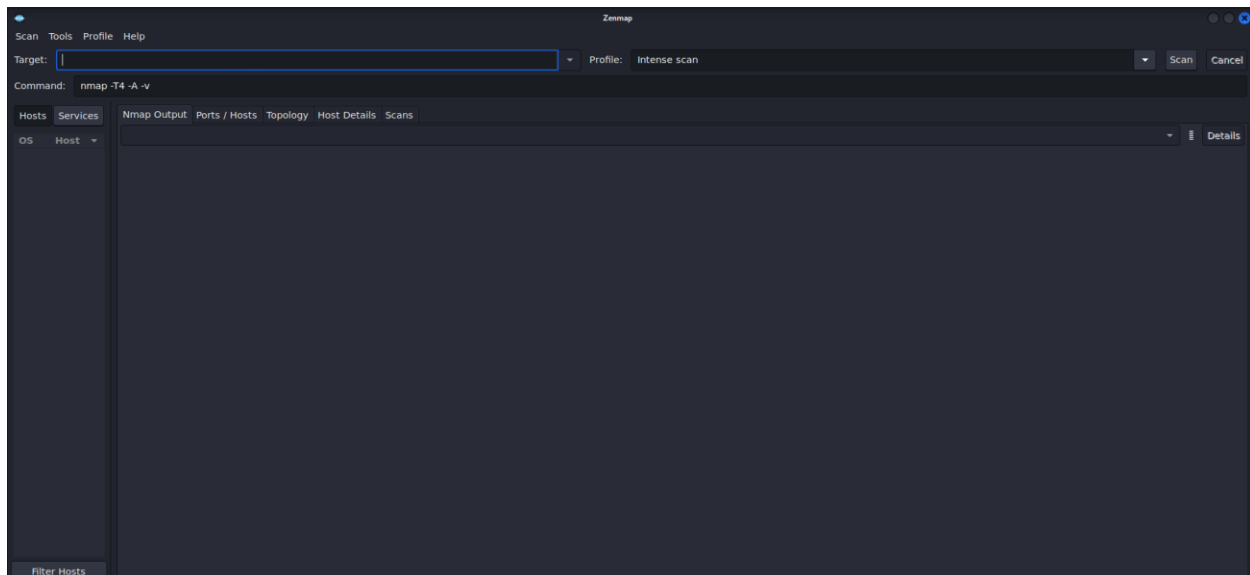
```
(kali@kali)-[~]  
$ sudo nmap -sS -sV -T3 -oA scanresults 192.168.110.163  
[sudo] password for kali:  
Starting Nmap 7.92 ( https://nmap.org ) at 2023-10-05 16:39 EDT  
Nmap scan report for 192.168.110.163  
Host is up (0.0012s latency).  
Not shown: 987 closed tcp ports (reset)  
PORT      STATE SERVICE      VERSION  
135/tcp   open  msrpc        Microsoft Windows RPC  
139/tcp   open  netbios-ssn  Microsoft Windows netbios-ssn  
445/tcp   open  microsoft-ds Microsoft Windows 7 - 10 microsoft-ds (workgroup: WORKGROUP)  
554/tcp   open  rtsp?          
2869/tcp  open  http         Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)  
3389/tcp  open  ms-wbt-server?  
10243/tcp open  http         Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)  
49152/tcp open  msrpc        Microsoft Windows RPC  
49153/tcp open  msrpc        Microsoft Windows RPC  
49154/tcp open  msrpc        Microsoft Windows RPC  
49155/tcp open  msrpc        Microsoft Windows RPC  
49156/tcp open  msrpc        Microsoft Windows RPC  
49157/tcp open  msrpc        Microsoft Windows RPC  
MAC Address: 00:0C:29:98:65:FD (VMware)  
Service Info: Host: WIN-105VFTJ7I5E; OS: Windows; CPE: cpe:/o:microsoft:windows  
  
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .  
Nmap done: 1 IP address (1 host up) scanned in 127.47 seconds  
  
(kali@kali)-[~]  
$ ls  
armitage-tmp Desktop Documents Downloads Music Pictures Public scanresults.gnmap scanresults.nmap scanresults.xml Templates Videos
```

```
File Edit Search View Document Help
*~/scanresults.nmap [Read Only] - Mousepad

1 # Nmap 7.92 scan initiated Thu Oct 5 16:39:19 2023 as: nmap -sS -sV -T3 -oA scanresults 192.168.110.163
2 Nmap scan report for 192.168.110.163
3 Host is up (0.0012s latency).
4 Not shown: 987 closed tcp ports (reset)
5 PORT      STATE SERVICE      VERSION
6 135/tcp    open  msrpc        Microsoft Windows RPC
7 139/tcp    open  netbios-ssn  Microsoft Windows netbios-ssn
8 445/tcp    open  microsoft-ds  Microsoft Windows 7 - 10 microsoft-ds (workgroup: WORKGROUP)
9 554/tcp    open  rtsp?
10 2869/tcp   open  http         Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
11 3389/tcp   open  ms-wbt-server?
12 10243/tcp  open  http         Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
13 49152/tcp  open  msrpc        Microsoft Windows RPC
14 49153/tcp  open  msrpc        Microsoft Windows RPC
15 49154/tcp  open  msrpc        Microsoft Windows RPC
16 49155/tcp  open  msrpc        Microsoft Windows RPC
17 49156/tcp  open  msrpc        Microsoft Windows RPC
18 49157/tcp  open  msrpc        Microsoft Windows RPC
19 MAC Address: 00:0C:29:98:65:FD (VMware)
20 Service Info: Host: WIN-105VFTJ7ISE; OS: Windows; CPE: cpe:/o:microsoft:windows
21
22 Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
23 # Nmap done at Thu Oct 5 16:41:26 2023 -- 1 IP address (1 host up) scanned in 127.47 seconds
```

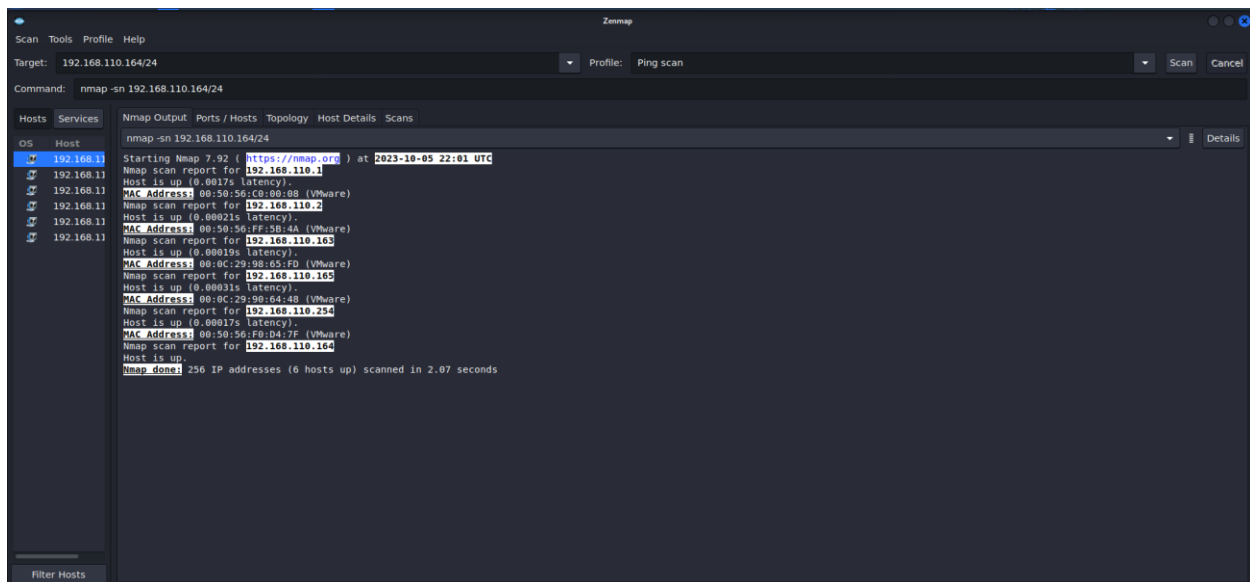
2. Zenmap

Open ZenMap and in the target window, type in the network address of the virtual network on your system.



In the Profile drop-down, select Ping scan. Note the “Command” shown. Press the “Scan” button. Take note of the results

Command - nmap -sn 192.168.110.164/24



Perform a slow comprehensive scan on a select target. As with the Ping scan, note the “Command” shown. Take note of the results and the time it takes to get them

Command - `nmap -sS -sU -T4 -A -v -PE -PP -PS80,443 -PA3389 -PU40125 -PY -g 53 --script "default or (discovery and safe)" 192.168.110.164/24`

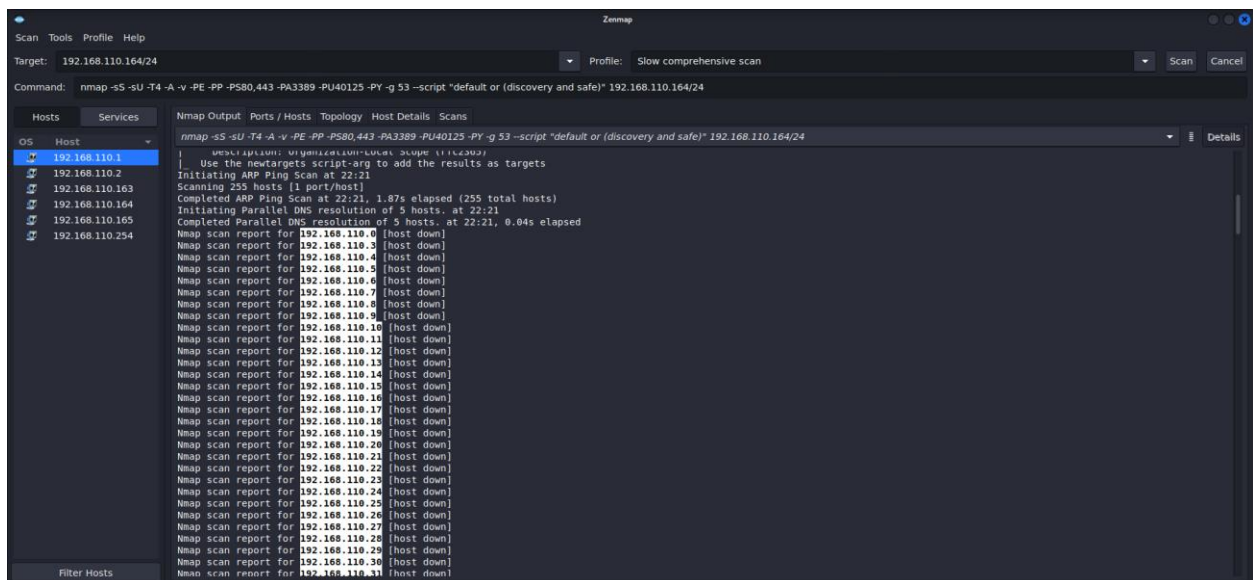
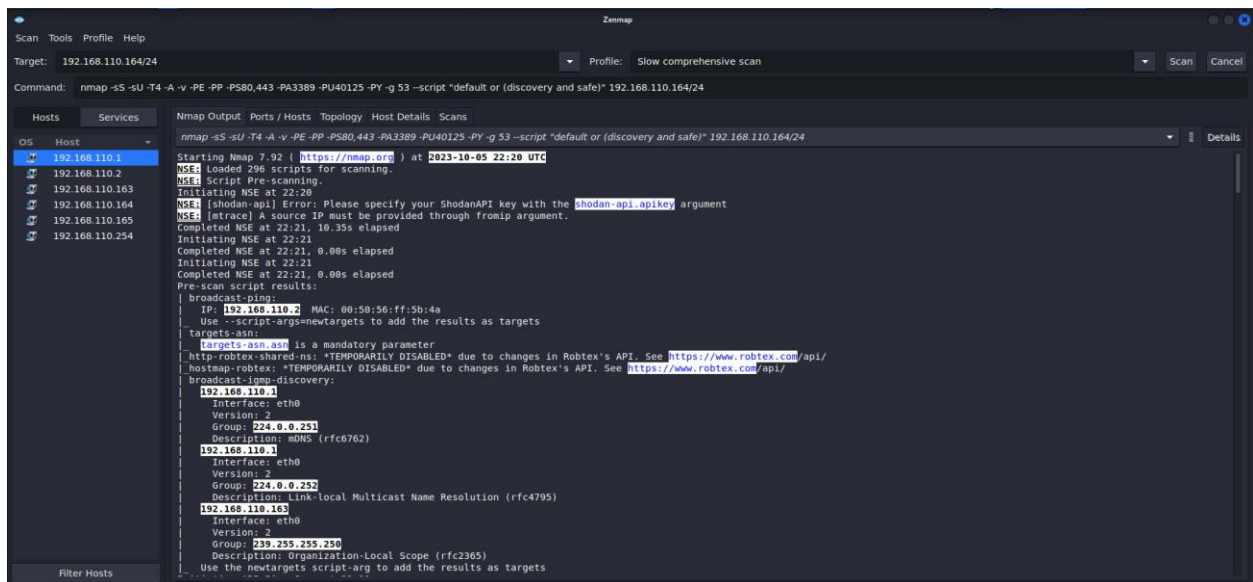
-sU is used for UDP scan

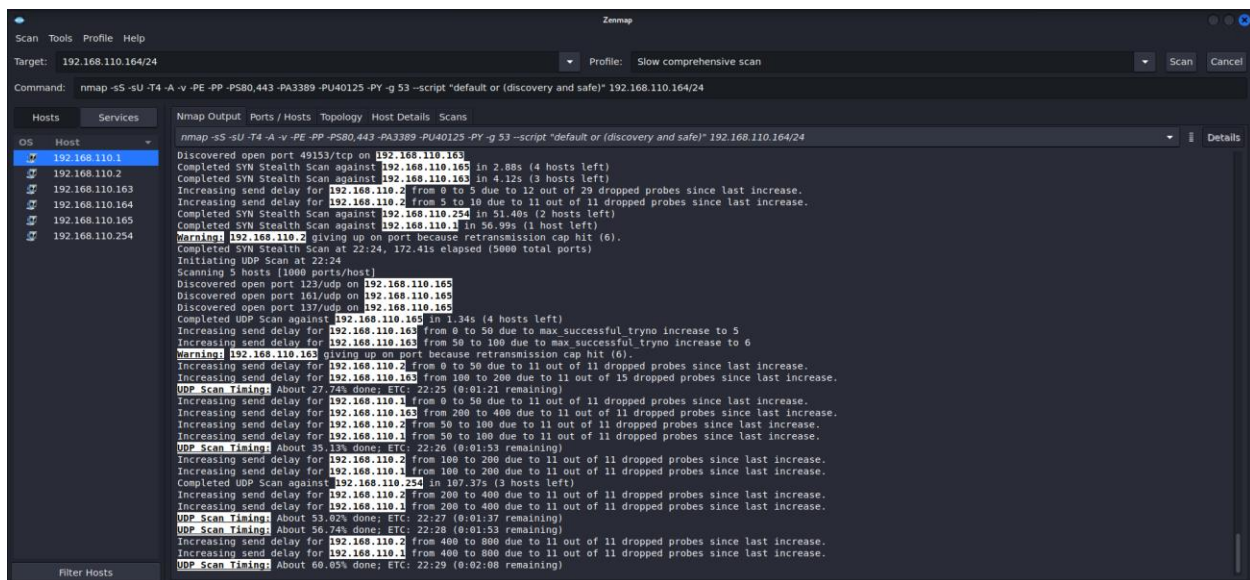
- T4 sets the timing template to an aggressive scan

-PE -PP -PS80,443 -PA3389 -PU40125 -PY is controls how nmap send packets to check if host is up or not.

-g 53 specifies a source port

--script enables Nmap script engine.





Perform an intense scan on the same target you selected above. As with the previous scans, note the “Command” shown. Take note of the results and the time it takes to get them

Command use - `nmap -T4 -A -v 192.168.110.164/24`

