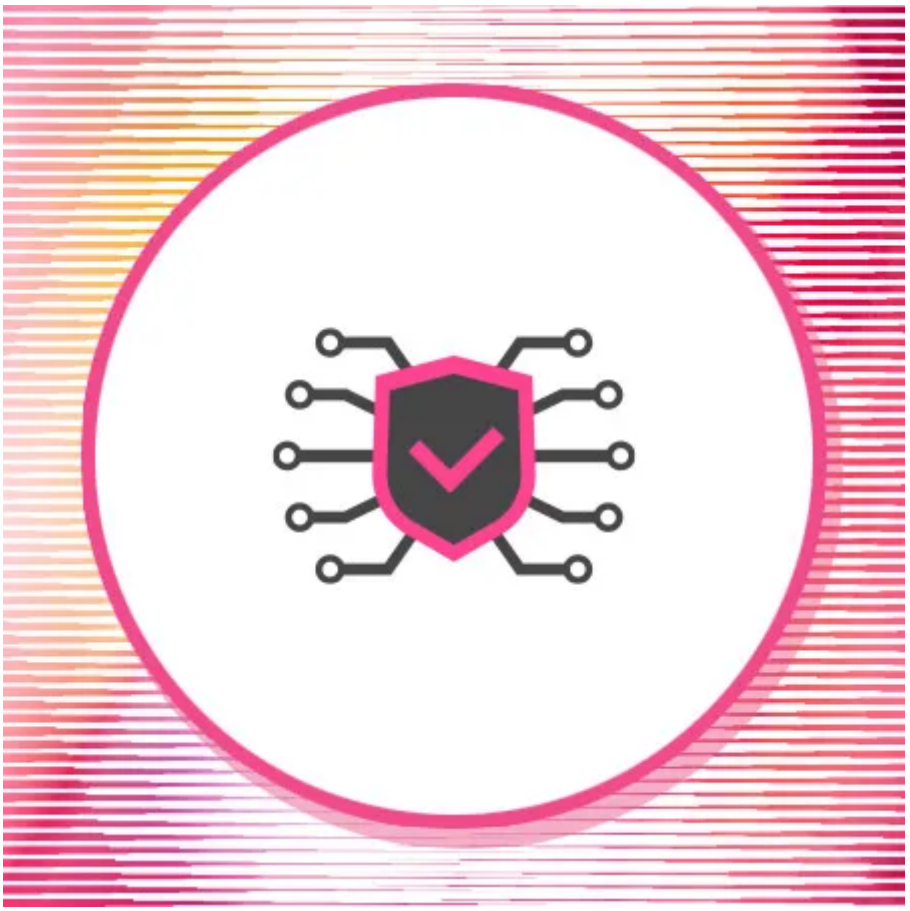
Rapport de laboratoire



Aysan Hakan

Table des matières

Liste des commandes :

Nmap - découverte des hôtes :

Commandes	Description
nmap -sn	Ping scan - disable port scan (**sn)
nmap –sn –PS	(*sn) + TCP SYN ping
nmap -sn –PA	(*sn) + TCP ACK ping
nmap -sn -PU	(*sn) + UDP ping
nmap -sn -PR	(*sn) + ARP ping
nmap -sn -PP	(*sn) + ICMP ping - timestamp
nmap -sn -PM	(*sn) + ICMP ping - netmask request discovery probes
nmap -sn -PO	(*sn) + IP ping

Nmap - découverte des ports :

Commandes	Description
nmap -sT	TCP connect
nmap -sS	TCP SYN
nmap -sX	Xmas tree
nmap -sN	Null
nmap -sM	Maimon
nmap -sF	TCP Fin
nmap -sA	TCP-ACK
nmap -sU	UDP

Windows 7 :

Nmap :

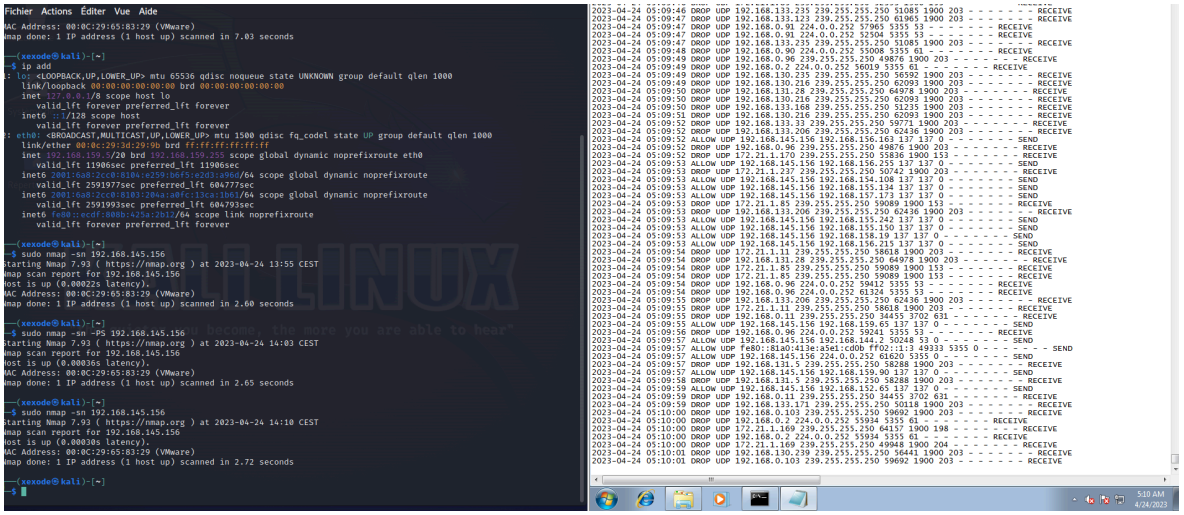


Image 1.1 : nmap -sn

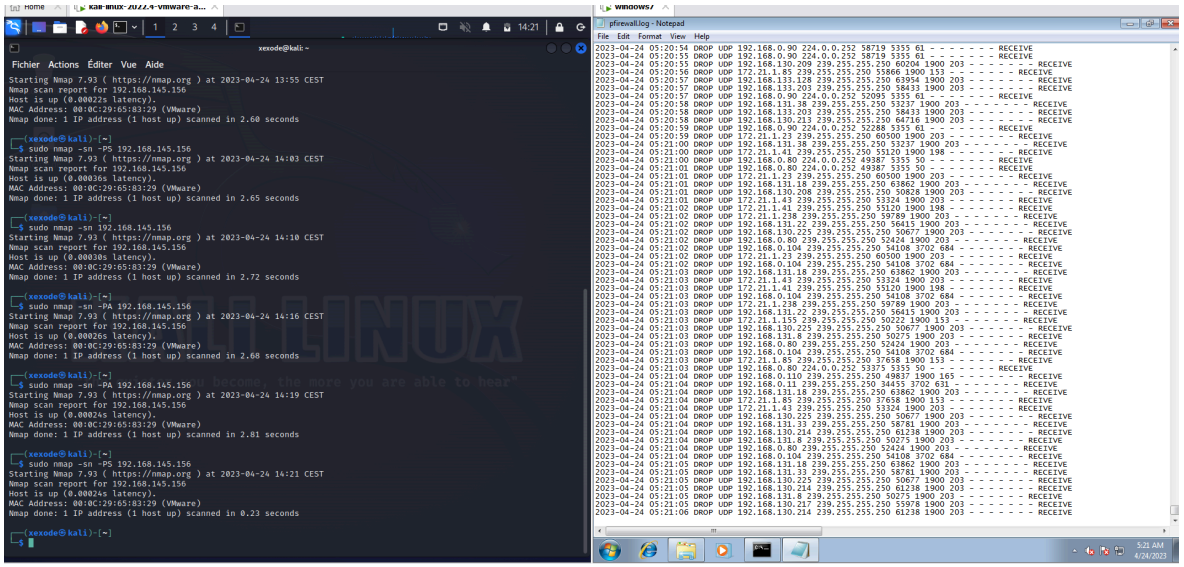


Image 1.2 : nmap -sn -PS

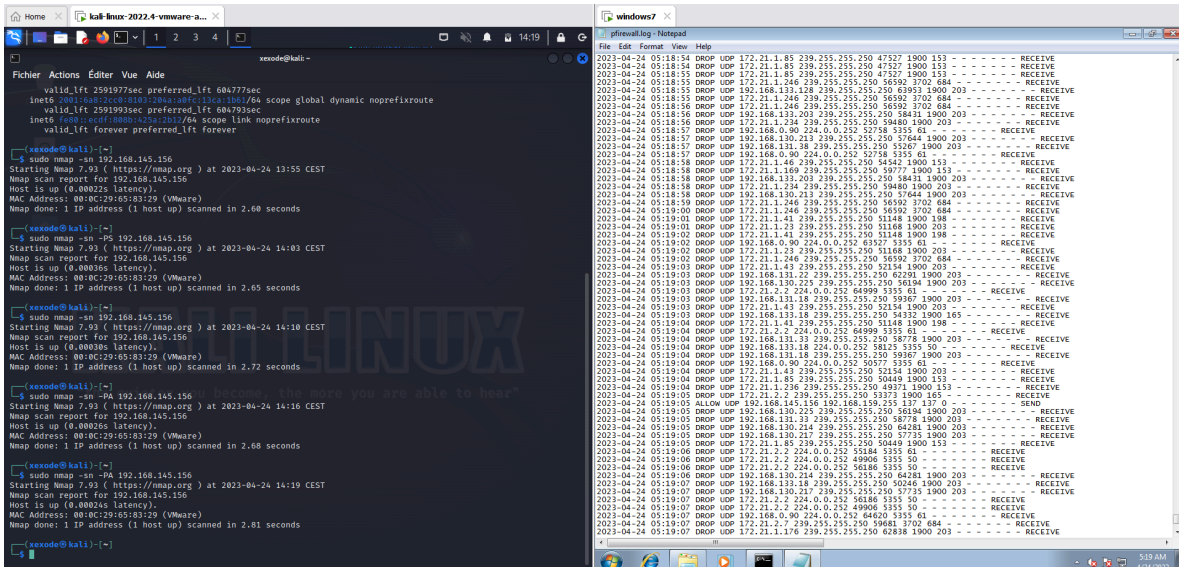


Image 1.3 : nmap -sn -PA

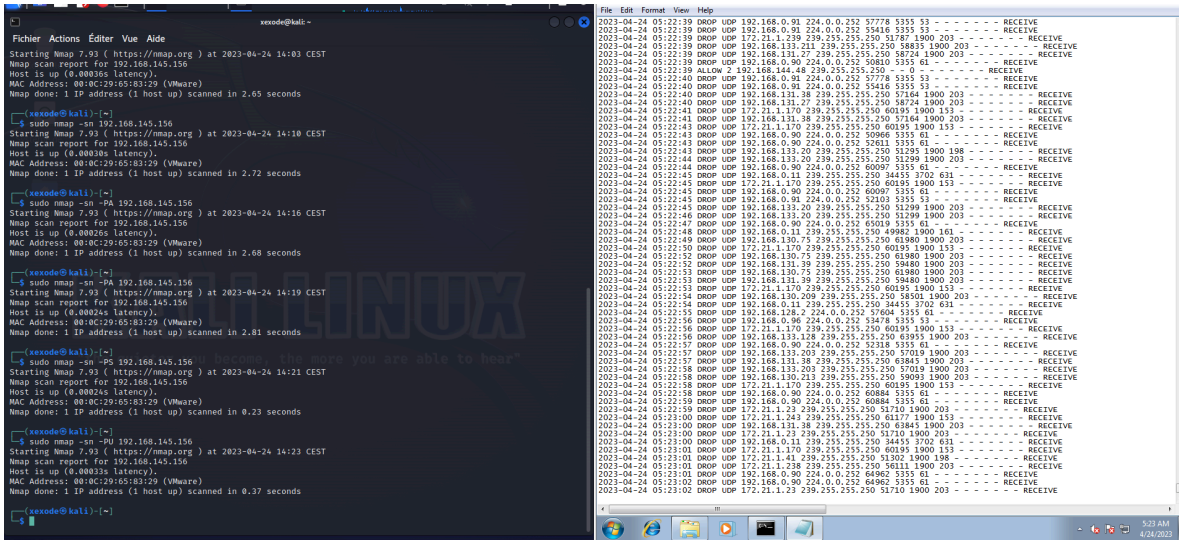


Image 1.4 : nmap -sn -PU

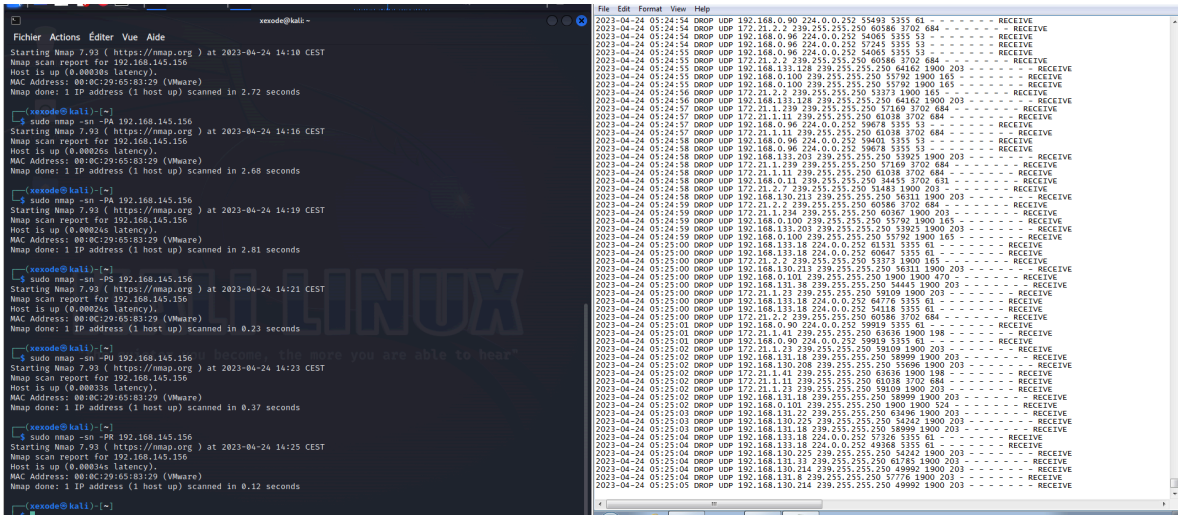


Image 1.5 : nmap -sn -PR

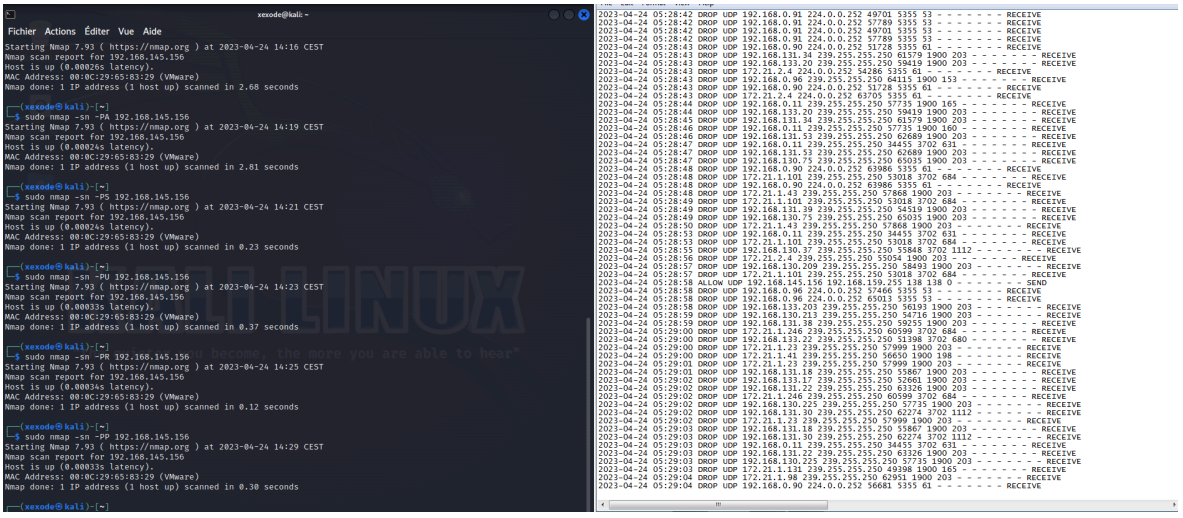


Image 1.6 : nmap -sn -PP

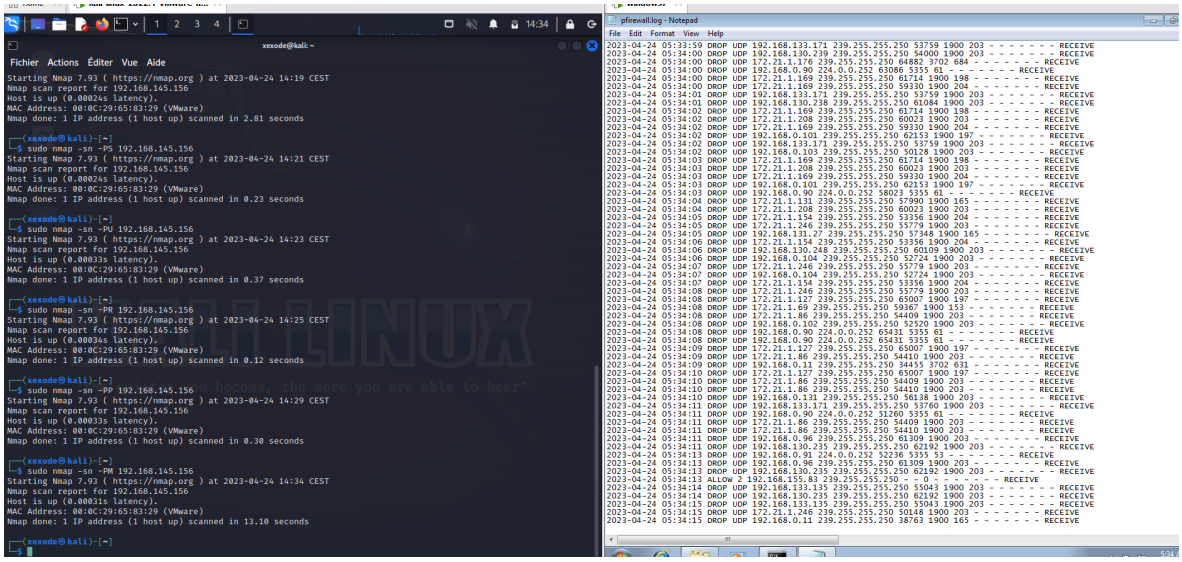


Image 1.7 : nmap -sn -PM

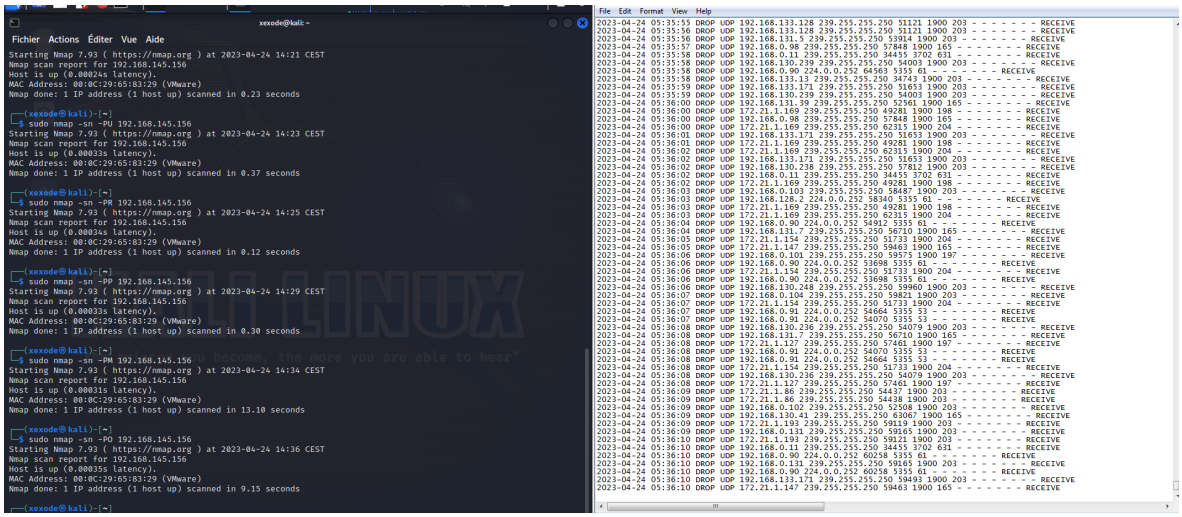


Image 1.8 : nmap -sn -PO

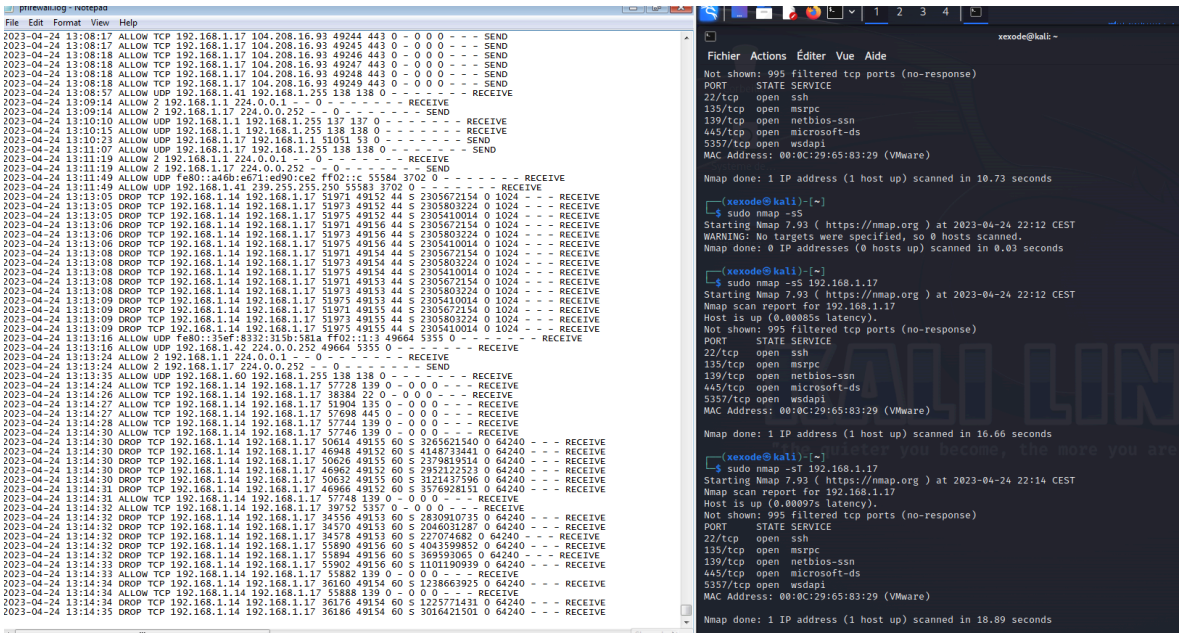


Image 1.9 : nmap -sT

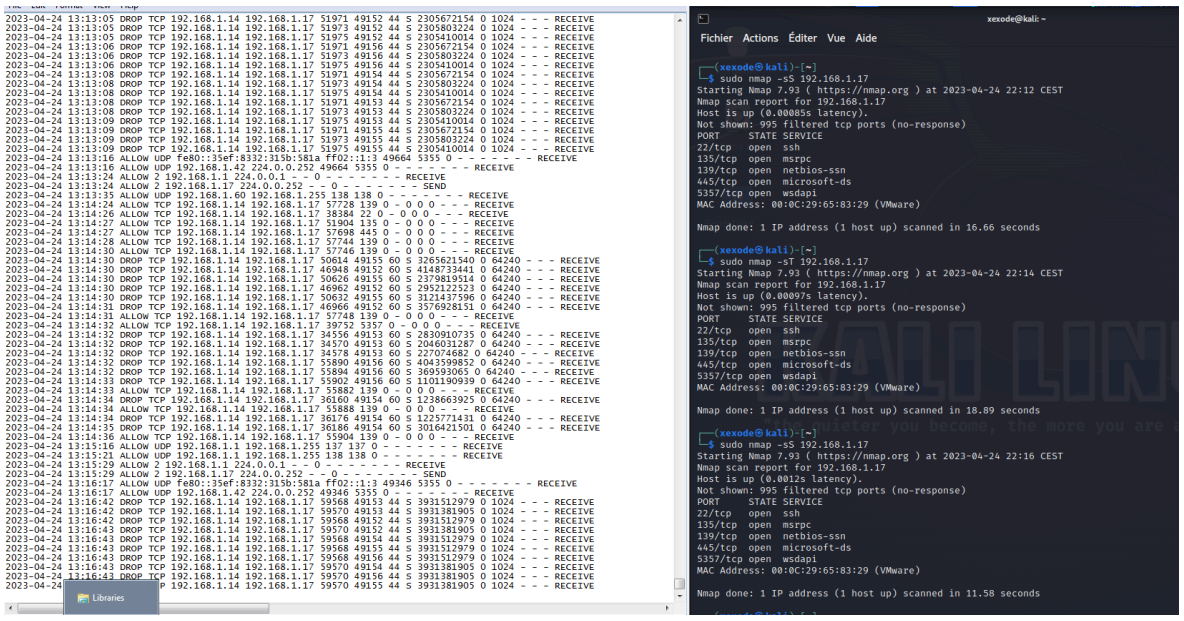
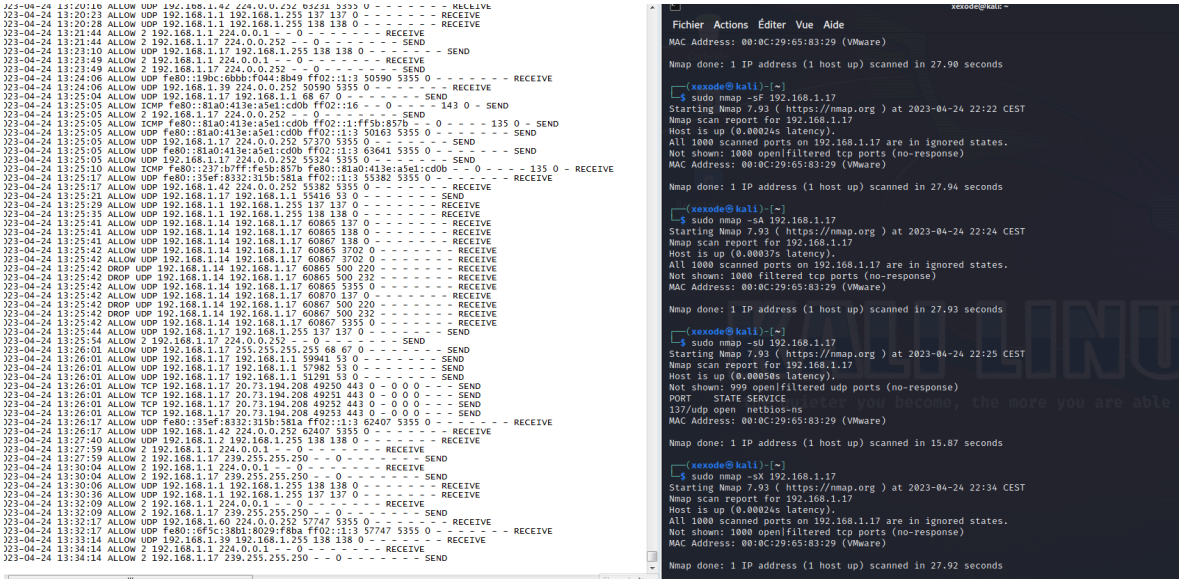
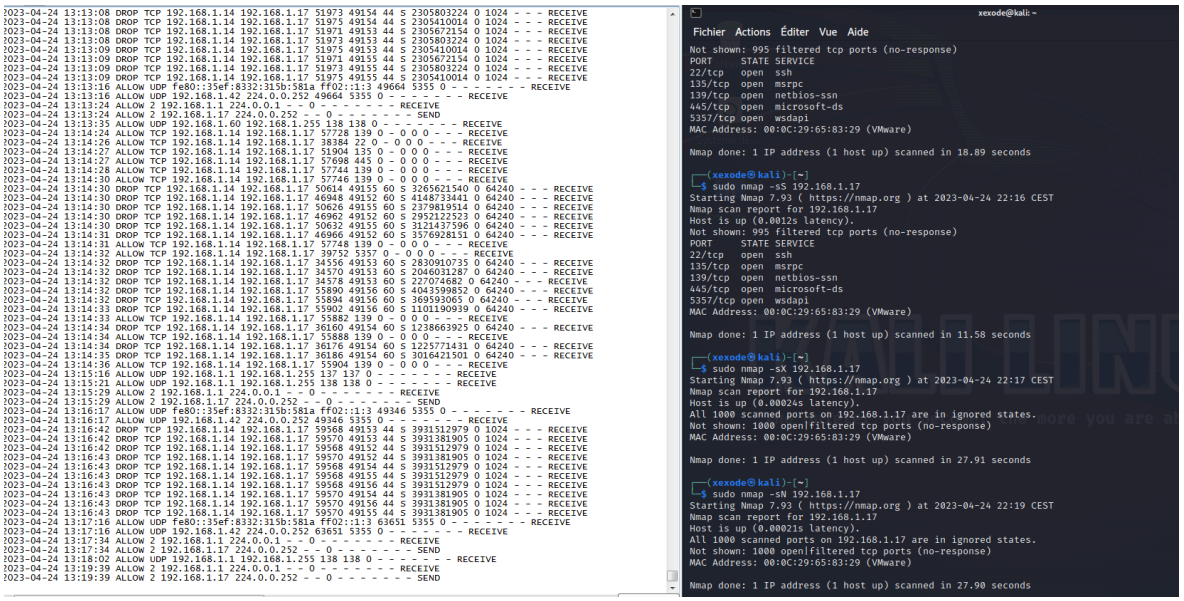


Image 1.10 : nmap -sS



```
Fichier  Actions  Éditer  Vue  Aide
MAC Address: 00:0C:29:65:83:29 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 27.90 seconds

┌──(xexode㉿kali)-[~]
└─$ sudo nmap -sF 192.168.1.17
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 22:22 CEST
Nmap scan report for 192.168.1.17
Host is up (0.00024s latency).
All 1000 scanned ports on 192.168.1.17 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:65:83:29 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 27.94 seconds

┌──(xexode㉿kali)-[~]
└─$ sudo nmap -sA 192.168.1.17
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 22:24 CEST
Nmap scan report for 192.168.1.17
Host is up (0.00037s latency).
All 1000 scanned ports on 192.168.1.17 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)
MAC Address: 00:0C:29:65:83:29 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 27.93 seconds

┌──(xexode㉿kali)-[~]
└─$ sudo nmap -sU 192.168.1.17
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 22:25 CEST
Nmap scan report for 192.168.1.17
Host is up (0.00050s latency).
Not shown: 999 open|filtered udp ports (no-response)
PORT    STATE SERVICE
137/udp open  netbios-ns
MAC Address: 00:0C:29:65:83:29 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 15.87 seconds

┌──(xexode㉿kali)-[~]
└─$ sudo nmap -sX 192.168.1.17
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 22:34 CEST
Nmap scan report for 192.168.1.17
Host is up (0.00024s latency).
All 1000 scanned ports on 192.168.1.17 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:65:83:29 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 27.92 seconds
```

Image 1.11 : nmap -sX



```
Fichier  Actions  Éditer  Vue  Aide
Not shown: 995 filtered tcp ports (no-response)
PORT    STATE SERVICE
22/tcp  open  ssh
135/tcp  open  msrpc
139/tcp  open  netbios-ssn
445/tcp  open  microsoft-ds
5357/tcp open  wsdapi
MAC Address: 00:0C:29:65:83:29 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 18.89 seconds

┌──(xexode㉿kali)-[~]
└─$ sudo nmap -sS 192.168.1.17
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 22:16 CEST
Nmap scan report for 192.168.1.17
Host is up (0.0012s latency).
Not shown: 995 filtered tcp ports (no-response)
PORT    STATE SERVICE
22/tcp  open  ssh
135/tcp  open  msrpc
139/tcp  open  netbios-ssn
445/tcp  open  microsoft-ds
5357/tcp open  wsdapi
MAC Address: 00:0C:29:65:83:29 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 11.58 seconds

┌──(xexode㉿kali)-[~]
└─$ sudo nmap -sX 192.168.1.17
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 22:17 CEST
Nmap scan report for 192.168.1.17
Host is up (0.00024s latency).
All 1000 scanned ports on 192.168.1.17 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:65:83:29 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 27.91 seconds

┌──(xexode㉿kali)-[~]
└─$ sudo nmap -sN 192.168.1.17
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 22:19 CEST
Nmap scan report for 192.168.1.17
Host is up (0.00021s latency).
All 1000 scanned ports on 192.168.1.17 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:65:83:29 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 27.90 seconds
```

Image 1.12 : nmap -sN

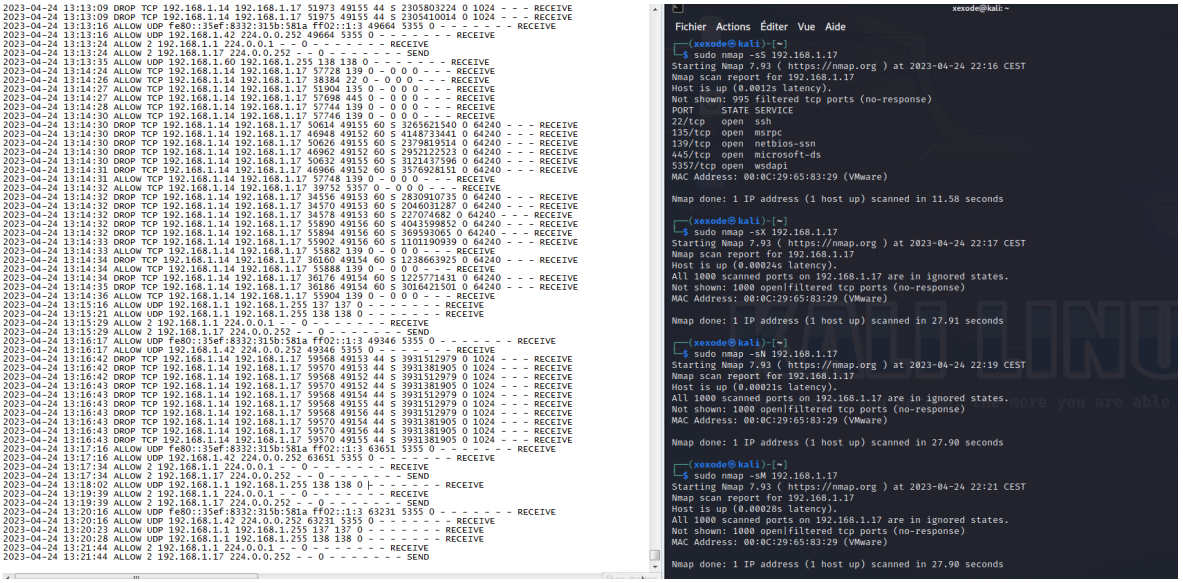


Image 1.13 : nmap -sM

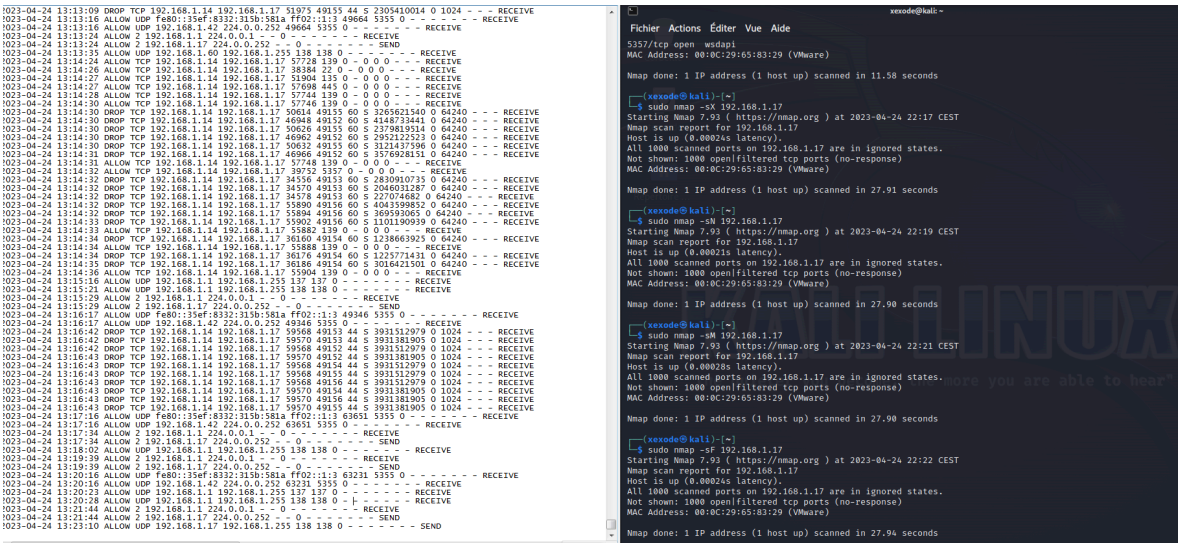


Image 1.14 : nmap -sF

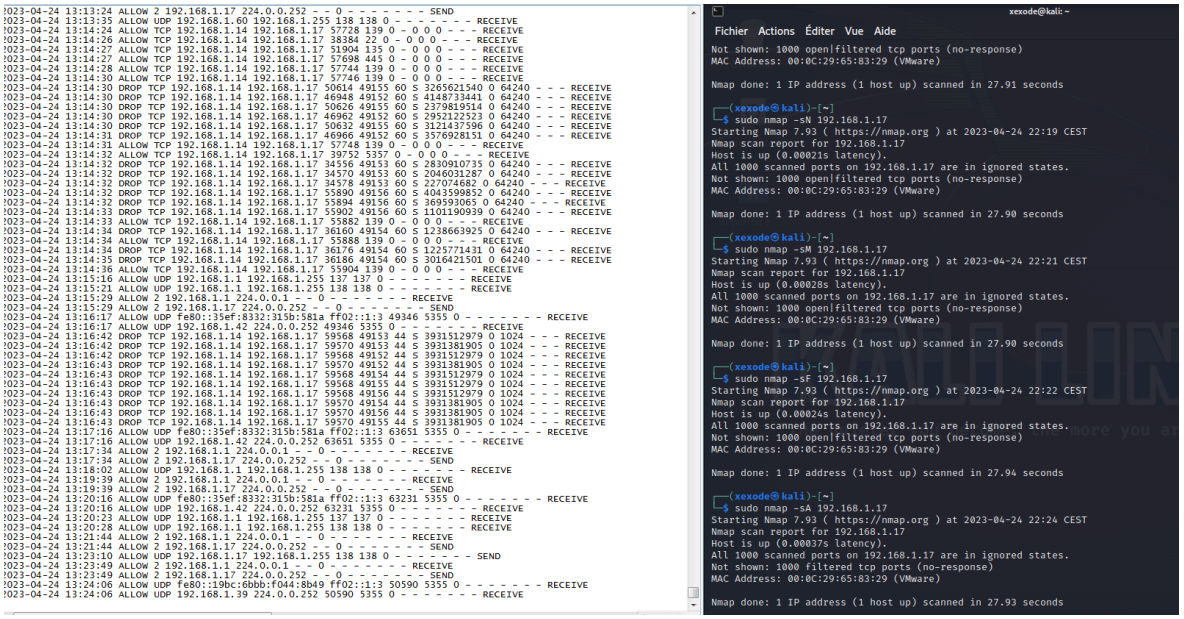


Image 1.15 : nmap -sA

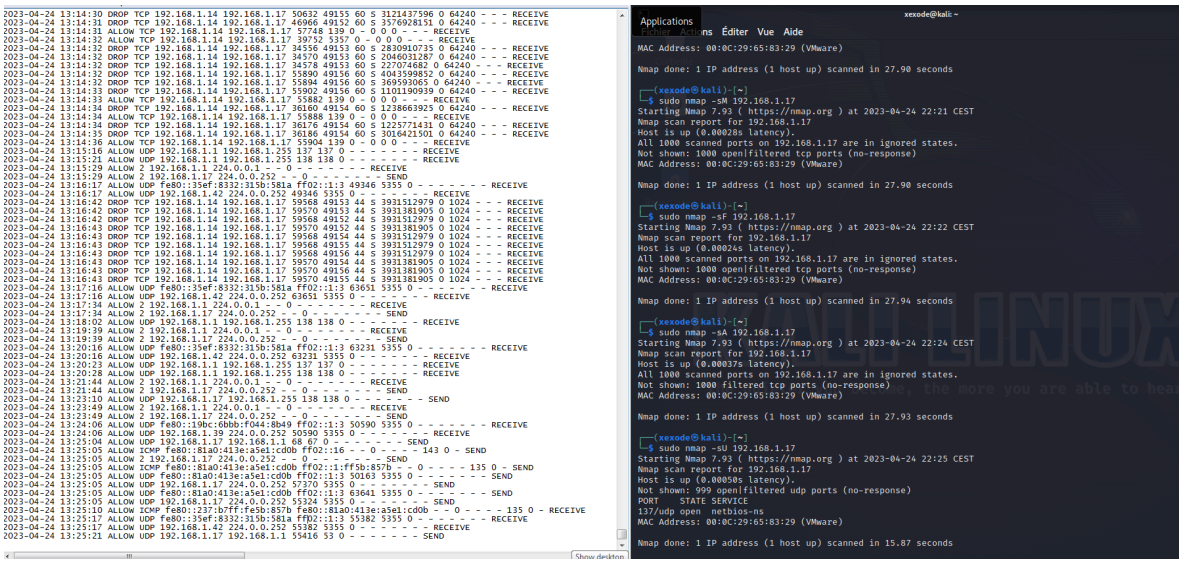


Image 1.16 : nmap -sU

Découverte des hôtes :

Commandes	Hôtes trouvés ?	Scan détecté ?
nmap -sn	Oui	Oui
nmap -sn -PS	Oui	Non
nmap -sn -PA	Oui	Non
nmap -sn -PU	Oui	Non
nmap -sn -PR	Oui	Oui
nmap -sn -PP	Oui	Non
nmap -sn -PM	Oui	Oui
nmap -sn -PO	Oui	Oui

Découverte des ports :

Commandes	Ports trouvés ?	Scan détecté ?
nmap -sT	Oui	Oui
nmap -sS	Oui	Oui
nmap -sX	Non	Non
nmap -sN	Non	Non
nmap -sM	Non	Non
nmap -sF	Non	Non
nmap -sA	Non	Non
nmap -sU	Oui/Non (1 seul)	Non

Découverte de l'OS et des versions des services :

Commandes	Scan détecté ?	Si détecté, détection partielle ?
nmap -O	Oui	Non
nmap -A	Oui	Non

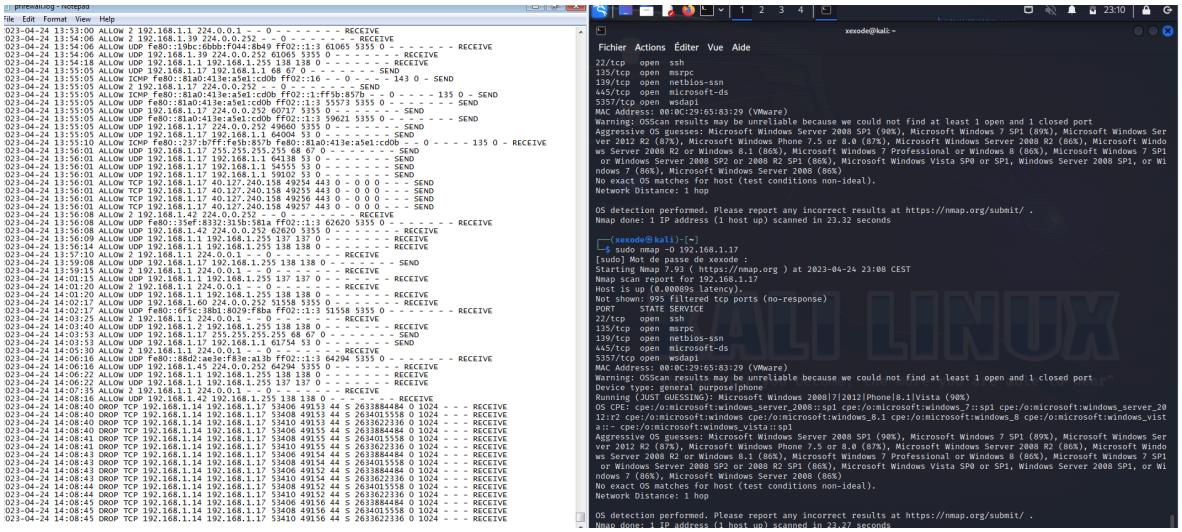


Image 1.17 : nmap -O

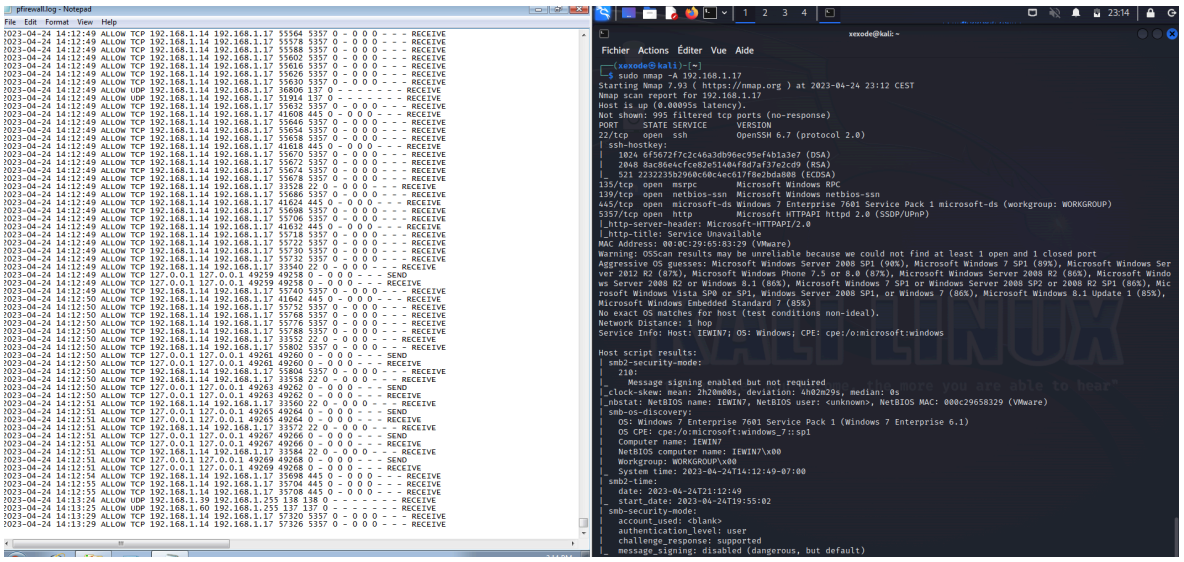


Image 1.18 : nmap -A

Le firewall de windows 7 a bien logué les scans dans fichiers de logs.
Cependant aucune alerte n'a été déclenchée par le firewall suite à ces scans.

Snort :

Snort n'a pas fonctionné avec Windows 7.

Netbios :

Commandes	Scan détecté ?
nbtscan -rvh	Non

```
┌──(xexode㉿kali)-[~]
└─$ nbtscan -rvh 192.168.1.17
Doing NBT name scan for addresses from 192.168.1.17


NetBIOS Name Table for Host 192.168.1.17:

Incomplete packet, 173 bytes long.
Name             Service          Type
----------------------------------------
IEWIN7           File Server Service
IEWIN7           Workstation Service
WORKGROUP        Domain Name
WORKGROUP        Browser Service Elections

Adapter address: 00:0c:29:65:83:29
```

Image 1.19 : nbtscan -rvh

Nessus :

Windows 7 n'est pas supporté par Nessus, il est donc impossible de l'installer sur la VM.

Windows 10 :

Nmap :

Découverte des hôtes:

- **nmap -sn 192.168.0.60** : commande utilisée pour effectuer un scan de ping sur l'IP de ma machine win 10 et indique si ma machine est connectée à cette adresse sur le réseau ou pas résultat illustré ci dessous:

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sn 192.168.0.60
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-18 18:22 CEST
Nmap scan report for 192.168.0.60
Host is up (0.00044s latency).
MAC Address: 00:0C:29:F6:D5:3F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 16.68 seconds
```

On peut voir que ma machine est bien connectée sur le réseau.

NB : dans le fichier Firewall.log on remarque que notre firewall a généré des logs suite à ce scan, comme illustré en partie ci dessous :

```
2023-04-24 14:18:12 DROP UDP 172.21.1.46 224.0.0.251 5353 5353 753 - - - - - - - RECEIVE
2023-04-24 14:18:12 DROP UDP 172.21.1.127 239.255.255.250 58013 1900 197 - - - - - - - RECEIVE
2023-04-24 14:18:12 DROP UDP 172.21.2.6 224.0.0.251 5353 5353 177 - - - - - - - RECEIVE
2023-04-24 14:18:12 DROP UDP 172.21.1.86 239.255.255.250 51795 1900 203 - - - - - - - RECEIVE
2023-04-24 14:18:12 DROP UDP 192.168.0.107 224.0.0.251 5353 5353 1475 - - - - - - - RECEIVE
2023-04-24 14:18:12 DROP UDP 192.168.0.107 224.0.0.251 5353 5353 1463 - - - - - - - RECEIVE
2023-04-24 14:18:12 DROP UDP 172.21.1.86 239.255.255.250 51796 1900 203 - - - - - - - RECEIVE
2023-04-24 14:18:12 DROP UDP 192.168.0.107 224.0.0.251 5353 5353 1409 - - - - - - - RECEIVE
2023-04-24 14:18:12 DROP UDP 172.21.1.245 224.0.0.251 5353 5353 71 - - - - - - - RECEIVE
2023-04-24 14:18:12 DROP UDP 192.168.0.57 224.0.0.251 5353 5353 111 - - - - - - - RECEIVE
2023-04-24 14:18:12 DROP UDP 192.168.0.107 224.0.0.251 5353 5353 82 - - - - - - - RECEIVE
2023-04-24 14:18:13 DROP UDP 172.21.1.18 224.0.0.251 5353 5353 1004 - - - - - - - RECEIVE
2023-04-24 14:18:13 DROP UDP 192.168.0.57 224.0.0.251 5353 5353 1456 - - - - - - - RECEIVE
2023-04-24 14:18:13 DROP UDP 192.168.0.57 224.0.0.251 5353 5353 1471 - - - - - - - RECEIVE
2023-04-24 14:18:13 DROP UDP 172.21.1.170 224.0.0.251 5353 5353 153 - - - - - - - RECEIVE
2023-04-24 14:18:13 DROP UDP 172.21.1.8 224.0.0.251 5353 5353 216 - - - - - - - RECEIVE
2023-04-24 14:18:14 DROP UDP 172.21.1.80 224.0.0.251 5353 5353 455 - - - - - - - RECEIVE
2023-04-24 14:18:14 DROP UDP 192.168.0.107 224.0.0.251 5353 5353 1439 - - - - - - - RECEIVE
2023-04-24 14:18:14 DROP UDP 172.21.2.6 224.0.0.251 5353 5353 143 - - - - - - - RECEIVE
2023-04-24 14:18:14 DROP UDP 172.21.1.55 224.0.0.251 5353 5353 479 - - - - - - - RECEIVE
2023-04-24 14:18:15 DROP UDP 172.21.1.155 239.255.255.250 50664 1900 199 - - - - - - - RECEIVE
2023-04-24 14:18:15 DROP UDP 172.21.1.100 224.0.0.251 5353 5353 249 - - - - - - - RECEIVE
2023-04-24 14:18:15 DROP UDP 172.21.2.6 224.0.0.251 5353 5353 143 - - - - - - - RECEIVE
2023-04-24 14:18:15 DROP UDP 192.168.0.107 224.0.0.251 5353 5353 1459 - - - - - - - RECEIVE
2023-04-24 14:18:15 DROP UDP 192.168.0.107 224.0.0.251 5353 5353 1477 - - - - - - - RECEIVE
2023-04-24 14:18:15 DROP UDP 172.21.2.6 224.0.0.251 5353 5353 145 - - - - - - - RECEIVE
2023-04-24 14:18:16 DROP UDP 192.168.0.57 224.0.0.251 5353 5353 1449 - - - - - - - RECEIVE
2023-04-24 14:18:16 DROP UDP 192.168.0.90 224.0.0.251 5353 5353 67 - - - - - - - RECEIVE
2023-04-24 14:18:16 DROP UDP 192.168.131.142 224.0.0.251 5353 5353 101 - - - - - - - RECEIVE
2023-04-24 14:18:16 DROP UDP 172.21.1.80 224.0.0.251 5353 5353 455 - - - - - - - RECEIVE
2023-04-24 14:18:16 DROP UDP 192.168.0.90 224.0.0.251 5353 5353 67 - - - - - - - RECEIVE
2023-04-24 14:18:16 DROP UDP 192.168.133.12 224.0.0.251 5353 5353 334 - - - - - - - RECEIVE
2023-04-24 14:18:16 DROP UDP 192.168.0.107 224.0.0.251 5353 5353 96 - - - - - - - RECEIVE
2023-04-24 14:18:16 DROP UDP 192.168.0.91 224.0.0.251 5353 5353 59 - - - - - - - RECEIVE
2023-04-24 14:18:16 DROP UDP 192.168.0.91 224.0.0.251 5353 5353 59 - - - - - - - RECEIVE
2023-04-24 14:18:16 DROP UDP 192.168.0.107 224.0.0.251 5353 5353 102 - - - - - - - RECEIVE
```

- **nmap -sn -PS 192.168.0.60** : cette commande utilise la technique de sondes TCP SYN pour déterminer si l'hôte est actif ou non, elle envoie des paquets SYN à l'adresse IP spécifiée pour établir une connexion TCP . La sortie de cette commande affichera le statut de l'adresse IP spécifiée (active ou inactive) en utilisant la technique de sondes SYN.

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sn -PS 192.168.0.60
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-18 18:49 CEST
Nmap scan report for 192.168.0.60
Host is up (0.00060s latency).
MAC Address: 00:0C:29:F6:D5:3F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.15 seconds
```

NB : une fois de plus on remarque que le firewall réagit à cette commande à générant des logs pour cela.

- **nmap -sn -PA 192.168.0.60** : cette commande va effectuer un scan de ping en utilisant la technique de sondes TCP ACK pour déterminer si l'hôte est actif ou non. Elle envoie des paquets ACK à l'adresse IP spécifiée pour établir une connexion TCP. Si le port est ouvert, l'hôte répondra avec un paquet RST/ACK. Si le port est fermé, l'hôte répondra avec un paquet RST.

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sn -PA 192.168.0.60
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-18 18:50 CEST
Nmap scan report for 192.168.0.60
Host is up (0.00051s latency).
MAC Address: 00:0C:29:F6:D5:3F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.15 seconds
```

- **nmap -sn -PU 192.168.0.60** : Cette commande va effectuer un scan de ping sur l'adresse IP 192.168.0.60 en utilisant la technique de sondes UDP pour déterminer si l'hôte est actif ou non. Cette commande envoie des paquets UDP à l'adresse IP spécifiée pour établir une connexion et indique si un hôte est trouvé ou pas.

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sn -PU 192.168.0.60
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-18 18:57 CEST
Nmap scan report for 192.168.0.60
Host is up (0.00033s latency).
MAC Address: 00:0C:29:F6:D5:3F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.16 seconds
```

- **nmap -sn -PR 192.168.0.60** : Commande utilisée pour effectuer un scan de découverte de réseau en utilisant Nmap. Elle envoie des paquets ICMP echo request (ping) pour détecter la présence d'hôtes sur le réseau spécifié.

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sn -PR 192.168.0.60
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-18 18:57 CEST
Nmap scan report for 192.168.0.60
Host is up (0.0028s latency).
MAC Address: 00:0C:29:F6:D5:3F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.18 seconds
```

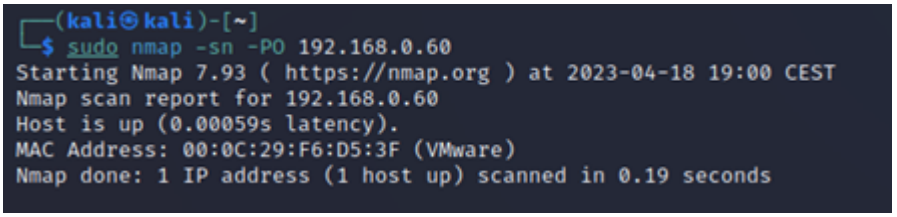
- **nmap -sn -PP 192.168.0.60** : est utilisée pour effectuer une analyse de ping sur une adresse IP spécifique, en l'occurrence 192.168.0.60.

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sn -PP 192.168.0.60
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-18 18:59 CEST
Nmap scan report for 192.168.0.60
Host is up (0.00049s latency).
MAC Address: 00:0C:29:F6:D5:3F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.19 seconds
```

- **nmap -sn -PM 192.168.0.60** : Commande utilisée pour effectuer une analyse de ping sur une l'adresse IP, en utilisant des requêtes ARP pour détecter les hôtes actifs sur le réseau local

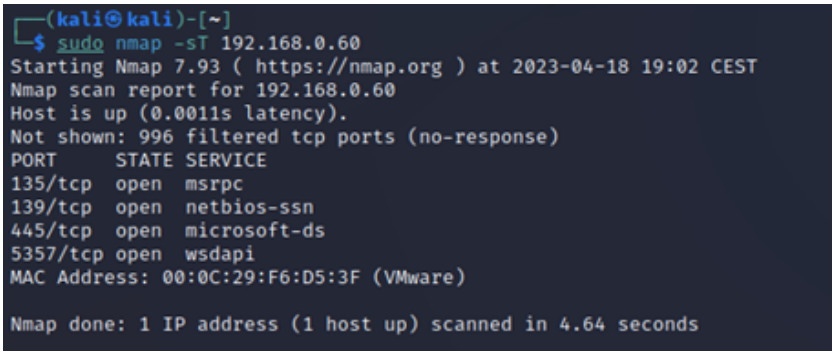
```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sn -PM 192.168.0.60
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-18 19:00 CEST
Nmap scan report for 192.168.0.60
Host is up (0.0028s latency).
MAC Address: 00:0C:29:F6:D5:3F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.20 seconds
```

- **nmap -sn -PO 192.168.0.60** : Commande utilisée pour effectuer une analyse de ping sur l'adresse 192.168.0.60 en utilisant des paquets avec l'option “Protocol Only" pour détecter les hôtes actifs sur le réseau local. Cette option est utile pour contourner les pare-feu qui bloquent les requêtes ICMP ou ARP.

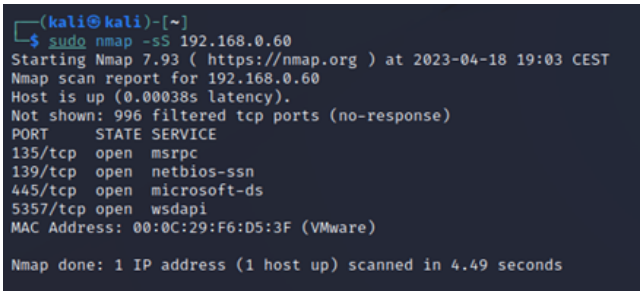


Découverte des ports:

- **nmap -sT 192.168.0.60** : Cette commande permet de scanner les ports de la machine 192.168.0.60 en utilisant le scan SYN pour vérifier les ports ouverts et fermés de l'hôte cible.



- **nmap -sS 192.168.0.60** : est semblable à la commande précédente à la différence que cette commande est utilisée pour éviter la détection par les systèmes de sécurité, car il ne termine pas la connexion TCP et ne laisse pas de traces dans les journaux.



- **nmap -sX 192.168.0.60** : Semblable aux autres scans des ports mais cette technique est moins discrète car facilement repérable par les pare-feux.

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sX 192.168.0.60
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-18 19:04 CEST
Nmap scan report for 192.168.0.60
Host is up (0.0027s latency).
All 1000 scanned ports on 192.168.0.60 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:F6:D5:3F (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.50 seconds
```

- **nmap -sN 192.168.0.60** : permet de scanner les ports d'une adresse IP en envoyant des paquets TCP avec des flags nuls. Cependant de nombreux pare-feux modernes sont configurés pour bloquer les paquets NULL, rendant cette méthode inefficace dans de nombreux cas.

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sN 192.168.0.60
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-18 19:08 CEST
Nmap scan report for 192.168.0.60
Host is up (0.00043s latency).
All 1000 scanned ports on 192.168.0.60 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:F6:D5:3F (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.48 seconds
```

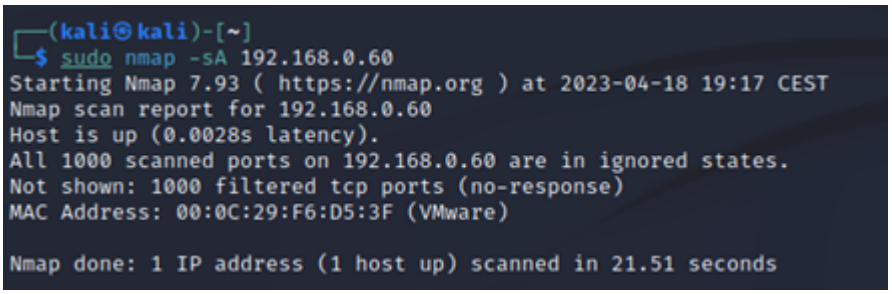
- **nmap -sM 192.168.0.60** : commande permettant de scanner les ports de la machine mais aussi utilisée pour détecter les systèmes vulnérables aux attaques de fragmentation IP.

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sM 192.168.0.60
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-18 19:09 CEST
Nmap scan report for 192.168.0.60
Host is up (0.00079s latency).
All 1000 scanned ports on 192.168.0.60 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:F6:D5:3F (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.52 seconds
```

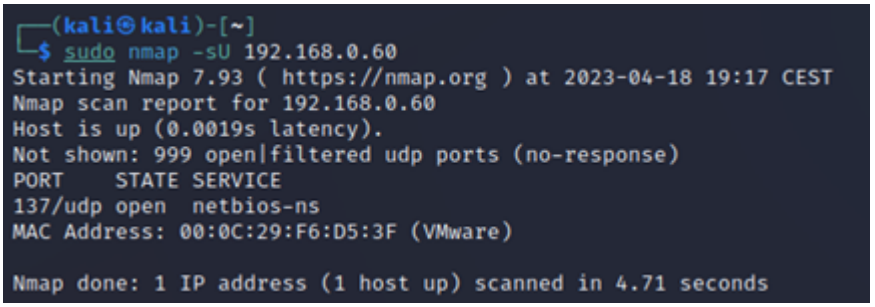
- **nmap -sF 192.168.0.60** : commande qui permet de scanner les ports de la machine en utilisant la méthode de scan de protocole FIN. permet aussi de déterminer si un port est ouvert ou fermé sur une machine cible.

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sF 192.168.0.60
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-18 19:11 CEST
Nmap scan report for 192.168.0.60
Host is up (0.0027s latency).
All 1000 scanned ports on 192.168.0.60 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:F6:D5:3F (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.51 seconds
```

- **nmap -sA 192.168.0.60** : commande qui permet de scanner les ports de la machine en utilisant la méthode de scan de protocole ACK, cette méthode de scan est souvent utilisée pour détecter les pare-feux qui filtrent les connexions TCP. En envoyant des paquets ACK à différents ports



- **nmap -sU 192.168.0.60** : Commande utilisée pour scanner les ports UDP ouverts sur l'adresse IP 192.168.0.60 à l'aide de l'outil de scan de ports Nmap



Découverte de l'OS et des versions de services

- **nmap -O 192.168.0.60 :** cette commande est une technique de scan appelée Fingerprint, qui consiste à envoyer des requêtes spécifiques à l'hôte cible et analyser les réponses pour déterminer le système d'exploitation en cours d'exécution. et en sortie on obtient des differents OS comme illustrés ci dessous:

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -O 192.168.0.60
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-18 19:23 CEST
Nmap scan report for 192.168.0.60
Host is up (0.00071s latency).
Not shown: 996 filtered tcp ports (no-response)
PORT     STATE SERVICE
135/tcp  open  msrpc
139/tcp  open  netbios-ssn
445/tcp  open  microsoft-ds
5357/tcp open  wsdapi
MAC Address: 00:0C:29:F6:D5:3F (VMware)
Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port
Device type: general purpose
Running (JUST GUESSING): Microsoft Windows XP|7|2008 (87%)
OS CPE: cpe:/o:microsoft:windows_xp::sp2 cpe:/o:microsoft:windows_7 cpe:/o:microsoft:windows_server_2008::sp1 cpe:/o:
microsoft:windows_server_2008:r2
Aggressive OS guesses: Microsoft Windows XP SP2 (87%), Microsoft Windows XP SP3 (87%), Microsoft Windows 7 (85%), Mic
rosoft Windows Server 2008 SP1 or Windows Server 2008 R2 (85%)
No exact OS matches for host (test conditions non-ideal).
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 9.46 seconds
```

- **nmap -A 192.168.0.60 :** c'est une commande complète qui permet à la fois de:
    - scanner les ports de la machine
    - Détecter les systèmes d'exploitation
    - exécuter des scripts pour trouver des informations supplémentaires
    - Déterminer les chemins de routage utilisés pour atteindre l'hôte (traceroute)

illustration ci dessous:

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -A 192.168.0.60
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-18 19:25 CEST
Nmap scan report for 192.168.0.60
Host is up (0.00072s latency).
Not shown: 996 filtered tcp ports (no-response)
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?
5357/tcp open  http          Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
|_http-server-header: Microsoft-HTTPAPI/2.0
|_http-title: Service Unavailable
MAC Address: 00:0C:29:F6:D5:3F (VMware)
Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port
Device type: general purpose
Running (JUST GUESSING): Microsoft Windows XP|7|2008 (89%)
OS CPE: cpe:/o:microsoft:windows_xp::sp3 cpe:/o:microsoft:windows_7 cpe:/o:microsoft:windows_server_2008::sp1 cpe:/o:microsoft
:windows_server_2008:r2
Aggressive OS guesses: Microsoft Windows XP SP3 (89%), Microsoft Windows XP SP2 (87%), Microsoft Windows 7 (85%), Microsoft Wi
ndows Server 2008 SP1 or Windows Server 2008 R2 (85%)
No exact OS matches for host (test conditions non-ideal).
Network Distance: 1 hop
Service Info: OS: Windows; CPE: cpe:/o:microsoft:windows

Host script results:
| smb2-security-mode:
|   311:
|_    Message signing enabled but not required
|_nbstat: NetBIOS name: DESKTOP-C8GB0IC, NetBIOS user: <unknown>, NetBIOS MAC: 000c29f6d53f (VMware)
| smb2-time:
|   date: 2023-04-18T17:25:45
|_  start_date: N/A

TRACEROUTE
HOP RTT     ADDRESS
1   0.72 ms 192.168.0.60

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 62.34 seconds
```

Découverte des hôtes :

Commandes	Hôtes trouvés ?	Scan détecté ?
nmap -sn	oui	oui
nmap -sn -PS	oui	oui
nmap -sn -PA	oui	oui
nmap -sn -PU	oui	oui
nmap -sn -PR	oui	oui
nmap -sn -PP	oui	oui
nmap -sn -PM	oui	oui
nmap -sn -PO	oui	oui

Découverte des ports :

Commandes	Ports trouvés ?	Scan détecté ?
nmap -sT	oui	oui
nmap -sS	oui	oui
nmap -sX	oui	oui
nmap -sN	oui	oui
nmap -sM	oui	oui
nmap -sF	oui	oui
nmap -sA	oui	oui
nmap -sU	oui	oui

Découverte de l'OS et des versions des services :

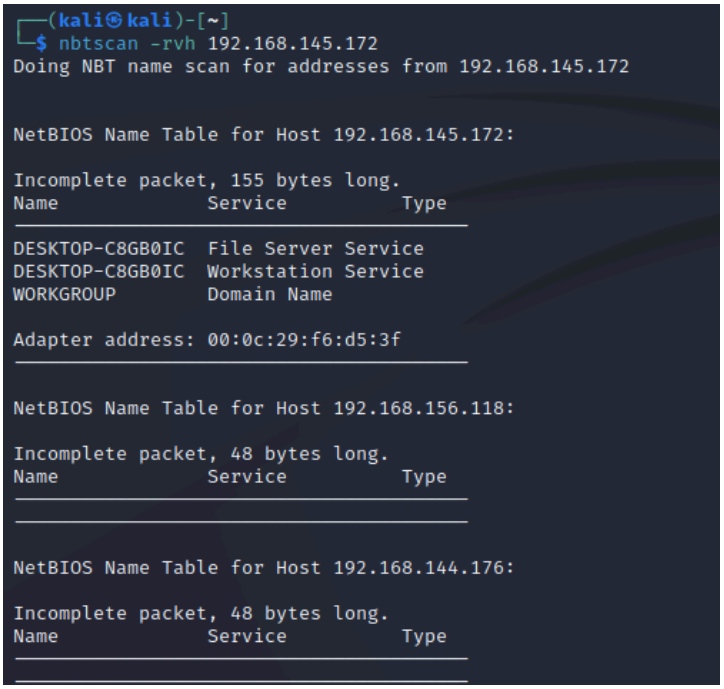
Commandes	Scan détecté ?	Si détecté, détection partielle ?
nmap -O	oui	oui
nmap -A	oui	oui

Snort :

- J'ai rencontré des problèmes pour télécharger l'outil snort sur windows car d'apres mes recherches il n'est plus disponible sur son site www.snort.org.

Netbios :

- nbtscan -rvh 192.168.145.172 : Cette commande est utilisée pour scanner le réseau à partir de l'adresse IP 192.168.145.175 et détecter tous les ordinateurs qui partagent des ressources via NetBIOS, en fournissant une sortie détaillée avec des informations telles que les adresses IP, les noms d'hôtes et les adresses MAC des hôtes détectés.



- Nmap –script nmap-vulners

Nessus :

- J'ai pu télécharger un fichier .msi de Nessus sur le site www.tenable.com et apres l'installation j'ai été redirigé vers une page dans laquelle il fallait s'inscrire et j'ai rencontré des erreur à chaque fois comme illustré ci dessous:

Ubuntu Server :

IP kali : 192.168.94.128

Nmap :

nmap -sn : Renvoie la liste des hôtes actifs

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sn 192.168.94.131
[sudo] password for kali:
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-23 21:15 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00052s latency).
MAC Address: 00:0C:29:65:19:9B (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.11 seconds
```

Détection : moins de 5 logs générés

```
Apr 23 19:15:19 ubuntuserv kernel: [  270.251968] [UFW ALLOW] IN= OUT=ens33 SRC=192.168.94.131 DST=9
1.189.94.4 LEN=76 TOS=0x10 PREC=0x00 TTL=64 ID=36276 DF PROTO=UDP SPT=55309 DPT=123 LEN=56
Apr 23 19:15:19 ubuntuserv kernel: [  270.276411] [UFW AUDIT] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:50:56:e8:58:04:08:00 SRC=91.189.94.4 DST=192.168.94.131 LEN=76 TOS=0x00 PREC=0x00 TTL=128 ID=63459
PROTO=UDP SPT=123 DPT=55309 LEN=56
```

nmap -sn -PS: Envoi d'un paquet TCPSYN sur le port (par défaut : 80), s'il reçoit SYN/ACK ou RST, l'hôte est actif.

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sn -PS 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-23 21:27 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00052s latency).
MAC Address: 00:0C:29:65:19:9B (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.12 seconds
```

Détection : log généré

```
Apr 23 19:27:58 ubuntuserv kernel: [  968.536413] [UFW AUDIT] IN=ens33 OUT= MAC=ff:ff:ff:ff:ff:ff:00
:50:56:c0:00:08:08:00 SRC=192.168.94.1 DST=192.168.94.255 LEN=72 TOS=0x00 PREC=0x00 TTL=128 ID=3447
PROTO=UDP SPT=57621 DPT=57621 LEN=52
```

nmap -sn -PA: Envoi d'un paquet TCP ACK sur le port (par défaut : 80), s'il reçoit SYN/ACK ou RST, l'hôte est actif.

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sn -PA 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-23 21:29 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00036s latency).
MAC Address: 00:0C:29:65:19:9B (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.12 seconds
```

Détection : 2 logs généré

```
Apr 23 19:29:06 ubuntuserv kernel: [ 1036.671106] [UFW AUDIT] IN= OUT=ens33 SRC=fe80:0000:0000:0000:
020c:29ff:fe65:199b DST=ff02:0000:0000:0000:0000:0000:0000:0002 LEN=56 TC=0 HOPLIMIT=255 FLOWLBL=998
855 PROTO=ICMPv6 TYPE=133 CODE=0
```

nmap -sn -PU: Envoi d'un paquet UDP vide sur un port, 'il reçoit un paquet ICMP « port unreachable », l'hôte est actif.

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sn -PU 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-23 21:31 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00045s latency).
MAC Address: 00:0C:29:65:19:9B (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.16 seconds
```

Détection : Moins de 5 logs

```
Apr 23 19:31:39 ubuntuserv kernel: [ 1189.933853] [UFW AUDIT] IN=ens33 OUT= MAC=ff:ff:ff:ff:ff:ff:00
:50:56:c0:00:08:08:00 SRC=192.168.94.1 DST=192.168.94.255 LEN=72 TOS=0x00 PREC=0x00 TTL=128 ID=3479
PROTO=UDP SPT=57621 DPT=57621 LEN=52
```

nmap -sn -PR:

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sn -PR 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-23 21:32 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00036s latency).
MAC Address: 00:0C:29:65:19:9B (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.12 seconds
```

Détection : Moins de 5 logs

```
Apr 23 19:33:06 ubuntuserv kernel: [ 1276.982681] [UFW AUDIT] IN=ens33 OUT= MAC=ff:ff:ff:ff:ff:ff:00
:50:56:c0:00:08:08:00 SRC=192.168.94.1 DST=192.168.94.255 LEN=72 TOS=0x00 PREC=0x00 TTL=128 ID=3482
PROTO=UDP SPT=57621 DPT=57621 LEN=52
```

nmap -sn -PP: Utilisation des protocoles ICMP et ARP

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sn -PP 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-23 21:35 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00053s latency).
MAC Address: 00:0C:29:65:19:9B (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.14 seconds
```

Détection :

```
Apr 23 19:35:40 ubuntuserv kernel: [ 1423.474168] [UFW AUDIT] IN=ens33 OUT= MAC=ff:ff:ff:ff:ff:ff:00
:50:56:c0:00:08:08:00 SRC=192.168.94.1 DST=192.168.94.255 LEN=72 TOS=0x00 PREC=0x00 TTL=128 ID=3488
PROTO=UDP SPT=57621 DPT=57621 LEN=52
```

nmap -sn -PM: Utilisation du protocoles ICMP uniquement

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sn -PM 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-23 21:36 CEST
Nmap scan report for 192.168.94.131
Host is up (0.0016s latency).
MAC Address: 00:0C:29:65:19:9B (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.13 seconds
```

Détection :

```
Apr 23 19:36:40 ubuntuserv kernel: [ 1483.533411] [UFW AUDIT] IN=ens33 OUT= MAC=ff:ff:ff:ff:ff:ff:00
:50:56:c0:00:08:08:00 SRC=192.168.94.1 DST=192.168.94.255 LEN=72 TOS=0x00 PREC=0x00 TTL=128 ID=3490
PROTO=UDP SPT=57621 DPT=57621 LEN=52
```

nmap -sn -PO: Demande de protocoles de plus haut niveau

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sn -PO 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-23 21:37 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00051s latency).
MAC Address: 00:0C:29:65:19:9B (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.24 seconds
```

Détection : Dizaines de logs générés

```
Apr 23 19:37:11 ubuntuserv kernel: [ 1513.558356] [UFW AUDIT] IN=ens33 OUT= MAC=ff:ff:ff:ff:ff:ff:00
:50:56:c0:00:08:08:00 SRC=192.168.94.1 DST=192.168.94.255 LEN=72 TOS=0x00 PREC=0x00 TTL=128 ID=3491
PROTO=UDP SPT=57621 DPT=57621 LEN=52
Apr 23 19:37:32 ubuntuserv kernel: [ 1535.177170] [UFW AUDIT] IN=ens33 OUT= MAC=ff:ff:ff:ff:ff:ff:00
:50:56:c0:00:08:08:00 SRC=192.168.94.1 DST=192.168.94.255 LEN=72 TOS=0x00 PREC=0x00 TTL=128 ID=3492
PROTO=UDP SPT=57621 DPT=57621 LEN=52
Apr 23 19:37:55 ubuntuserv kernel: [ 1558.496335] [UFW AUDIT] IN= OUT=ens33 SRC=192.168.94.131 DST=9
1.189.94.4 LEN=76 TOS=0x10 PREC=0x00 TTL=64 ID=54004 DF PROTO=UDP SPT=45073 DPT=123 LEN=56
Apr 23 19:37:55 ubuntuserv kernel: [ 1558.496342] [UFW ALLOW] IN= OUT=ens33 SRC=192.168.94.131 DST=9
1.189.94.4 LEN=76 TOS=0x10 PREC=0x00 TTL=64 ID=54004 DF PROTO=UDP SPT=45073 DPT=123 LEN=56
Apr 23 19:37:56 ubuntuserv kernel: [ 1558.631666] [UFW AUDIT] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:50:56:e8:58:04:08:00 SRC=91.189.94.4 DST=192.168.94.131 LEN=76 TOS=0x00 PREC=0x00 TTL=128 ID=31952
PROTO=UDP SPT=123 DPT=45073 LEN=56
```

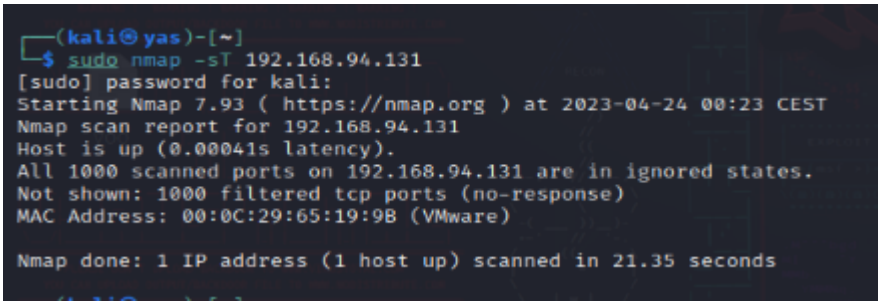
Découverte des hôtes :

Commandes	Hôtes trouvés ?	Scan détecté ?	Temps d'exécution
nmap -sn	Oui	Oui	0.11 secondes
nmap -sn -PS	Oui	Oui	0.12 secondes

nmap -sn -PA	Oui	Oui	0.12 secondes
nmap -sn -PU	Oui	Oui	0.16 secondes
nmap -sn -PR	Oui	Oui	0.12 secondes
nmap -sn -PP	Oui	Oui	0.14 secondes
nmap -sn -PM	Oui	Oui	0.13 secondes
nmap -sn -PO	Oui	Oui	0.24 secondes

Découverte des ports :

nmap –sT : Équivaut à une connexion normale



Détection : Centaines de logs générés / Très bruyant et facilement détectable.

nmap -sS : Équivaut au three way handshake mais sans le dernier envoi.

Détection : Relativement discret car handshake incomplet (pas de log du service), mais il est détecté par les firewalls et les IDS

```
Apr 23 22:24:55 ubuntuserv kernel: [10592.305266] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=44 TOS=0x00 PREC=0x00 TTL=58 ID=3043
3 PROTO=TCP SPT=46219 DPT=9999 WINDOW=1024 RES=0x00 SYN URGP=0
Apr 23 22:24:55 ubuntuserv kernel: [10592.305312] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=44 TOS=0x00 PREC=0x00 TTL=56 ID=5985
0 PROTO=TCP SPT=46219 DPT=48080 WINDOW=1024 RES=0x00 SYN URGP=0
Apr 23 22:24:55 ubuntuserv kernel: [10592.309602] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=44 TOS=0x00 PREC=0x00 TTL=39 ID=1234
8 PROTO=TCP SPT=46219 DPT=2135 WINDOW=1024 RES=0x00 SYN URGP=0
Apr 23 22:24:55 ubuntuserv kernel: [10592.313087] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=44 TOS=0x00 PREC=0x00 TTL=58 ID=2302
0 PROTO=TCP SPT=46217 DPT=427 WINDOW=1024 RES=0x00 SYN URGP=0
Apr 23 22:24:55 ubuntuserv kernel: [10592.313093] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=44 TOS=0x00 PREC=0x00 TTL=38 ID=9075
 PROTO=TCP SPT=46217 DPT=1914 WINDOW=1024 RES=0x00 SYN URGP=0
Apr 23 22:24:55 ubuntuserv kernel: [10592.316112] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=44 TOS=0x00 PREC=0x00 TTL=40 ID=5343
9 PROTO=TCP SPT=46219 DPT=5815 WINDOW=1024 RES=0x00 SYN URGP=0
Apr 23 22:24:55 ubuntuserv kernel: [10592.316209] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=44 TOS=0x00 PREC=0x00 TTL=49 ID=4950
9 PROTO=TCP SPT=46219 DPT=2522 WINDOW=1024 RES=0x00 SYN URGP=0
Apr 23 22:24:55 ubuntuserv kernel: [10592.316256] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=44 TOS=0x00 PREC=0x00 TTL=40 ID=2584
2 PROTO=TCP SPT=46217 DPT=6580 WINDOW=1024 RES=0x00 SYN URGP=0
Apr 23 22:24:55 ubuntuserv kernel: [10592.319246] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=44 TOS=0x00 PREC=0x00 TTL=53 ID=4141
9 PROTO=TCP SPT=46219 DPT=10243 WINDOW=1024 RES=0x00 SYN URGP=0
Apr 23 22:24:55 ubuntuserv kernel: [10592.520952] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=44 TOS=0x00 PREC=0x00 TTL=46 ID=6442
0 PROTO=TCP SPT=46219 DPT=6580 WINDOW=1024 RES=0x00 SYN URGP=0
Apr 23 22:24:55 ubuntuserv kernel: [10592.522916] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=44 TOS=0x00 PREC=0x00 TTL=44 ID=2930
6 PROTO=TCP SPT=46219 DPT=1914 WINDOW=1024 RES=0x00 SYN URGP=0
Apr 23 22:24:55 ubuntuserv kernel: [10592.522761] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=44 TOS=0x00 PREC=0x00 TTL=48 ID=4136
6 PROTO=TCP SPT=46219 DPT=427 WINDOW=1024 RES=0x00 SYN URGP=0
```

nmap -sX: Utilisation de la technique de balayage XMAS : envoie de paquets TCP à destination des ports cibles avec les indicateurs URG, PUSH et FIN définis

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sX 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 00:25 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00040s latency).
All 1000 scanned ports on 192.168.94.131 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:65:19:9B (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.40 seconds
```

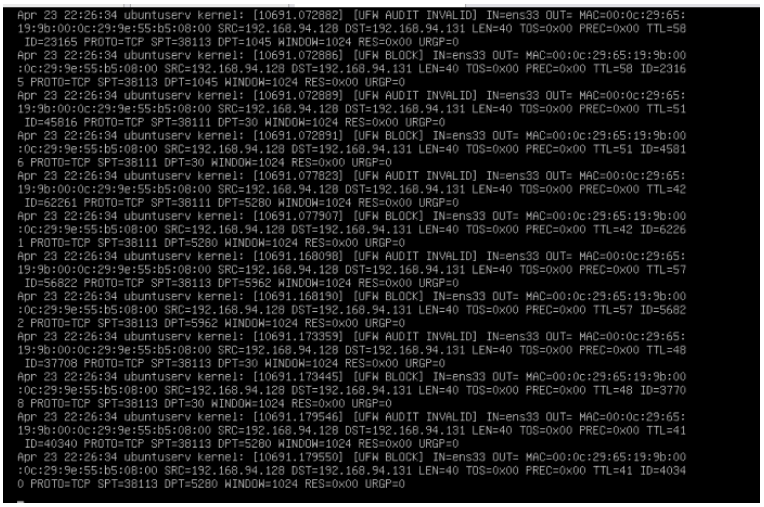
Détection : Assez furtif, n'est pas détecté par les firewall sans état.

```
Apr 23 22:25:48 ubuntuserv kernel: [10645.080207] [UFW AUDIT INVALID] IN=ens33 OUT= MAC=00:0c:29:65:
19:9b:00:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=52
 ID=22547 PROTO=TCP SPT=36915 DPT=9418 WINDOW=1024 RES=0x00 URG PSH FIN URGP=0
Apr 23 22:25:48 ubuntuserv kernel: [10645.080254] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=52 ID=2254
7 PROTO=TCP SPT=36915 DPT=9418 WINDOW=1024 RES=0x00 URG PSH FIN URGP=0
Apr 23 22:25:48 ubuntuserv kernel: [10645.083227] [UFW AUDIT INVALID] IN=ens33 OUT= MAC=00:0c:29:65:
19:9b:00:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=48
 ID=30729 PROTO=TCP SPT=36915 DPT=1310 WINDOW=1024 RES=0x00 URG PSH FIN URGP=0
Apr 23 22:25:48 ubuntuserv kernel: [10645.083231] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=48 ID=3072
9 PROTO=TCP SPT=36915 DPT=1310 WINDOW=1024 RES=0x00 URG PSH FIN URGP=0
Apr 23 22:25:48 ubuntuserv kernel: [10645.083235] [UFW AUDIT INVALID] IN=ens33 OUT= MAC=00:0c:29:65:
19:9b:00:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=57
 ID=11112 PROTO=TCP SPT=36915 DPT=6389 WINDOW=1024 RES=0x00 URG PSH FIN URGP=0
Apr 23 22:25:48 ubuntuserv kernel: [10645.083237] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=57 ID=1111
2 PROTO=TCP SPT=36915 DPT=6389 WINDOW=1024 RES=0x00 URG PSH FIN URGP=0
Apr 23 22:25:48 ubuntuserv kernel: [10645.087243] [UFW AUDIT INVALID] IN=ens33 OUT= MAC=00:0c:29:65:
19:9b:00:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=42
 ID=14392 PROTO=TCP SPT=36915 DPT=1971 WINDOW=1024 RES=0x00 URG PSH FIN URGP=0
Apr 23 22:25:48 ubuntuserv kernel: [10645.087247] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=42 ID=1439
2 PROTO=TCP SPT=36915 DPT=1971 WINDOW=1024 RES=0x00 URG PSH FIN URGP=0
Apr 23 22:25:48 ubuntuserv kernel: [10645.087251] [UFW AUDIT INVALID] IN=ens33 OUT= MAC=00:0c:29:65:
19:9b:00:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=40
 ID=28754 PROTO=TCP SPT=36915 DPT=7443 WINDOW=1024 RES=0x00 URG PSH FIN URGP=0
Apr 23 22:25:48 ubuntuserv kernel: [10645.087253] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=40 ID=2875
4 PROTO=TCP SPT=36915 DPT=7443 WINDOW=1024 RES=0x00 URG PSH FIN URGP=0
Apr 23 22:25:48 ubuntuserv kernel: [10645.087256] [UFW AUDIT INVALID] IN=ens33 OUT= MAC=00:0c:29:65:
19:9b:00:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=58
 ID=19049 PROTO=TCP SPT=36915 DPT=2381 WINDOW=1024 RES=0x00 URG PSH FIN URGP=0
Apr 23 22:25:48 ubuntuserv kernel: [10645.087258] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00
:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=58 ID=1904
9 PROTO=TCP SPT=36915 DPT=2381 WINDOW=1024 RES=0x00 URG PSH FIN URGP=0
```

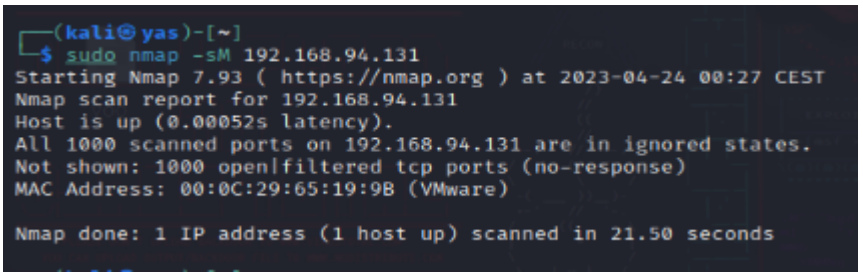
nmap -sN: Même principe que Xmas tree mais aucun drapeau ne possède de valeur.

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sN 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 00:26 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00039s latency).
All 1000 scanned ports on 192.168.94.131 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:65:19:9B (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.50 seconds
```

Détection : Non détecté par les firewall sans état mais génère des logs dans syslog.

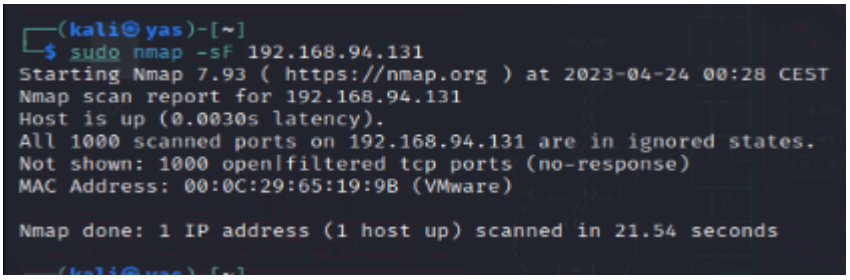


nmap -sM : idem au scan NULL et XMAS (Drapeaux FIN + ACK à 1)

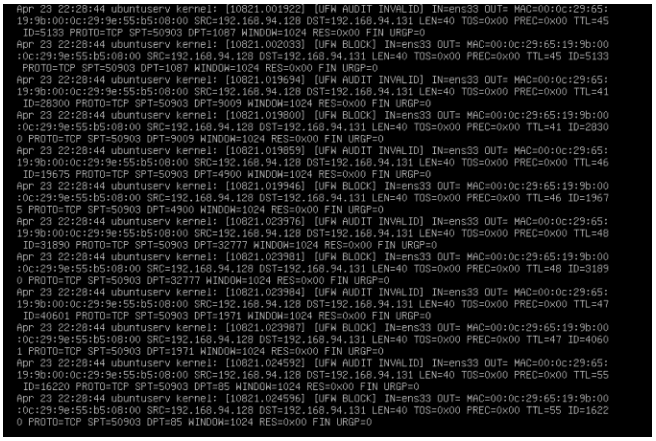


Détection : pas très discret, génère des centaines de log dans syslog

nmap -sF : idem que NULL et XMAS (Drapeaux FIN à 1 pour simuler une fin de connexion)



Détection : Bruyant, même après la fin du scan il continue a envoyé des logs



nmap -sA : Scan TCP ACK sur un hôte spécifié (possibilité de préciser le port)

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sA 21  192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 21:09 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00060s latency).
All 1000 scanned ports on 192.168.94.131 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)
MAC Address: 00:0C:29:65:19:9B (VMware)

Nmap done: 2 IP addresses (1 host up) scanned in 24.70 seconds
```

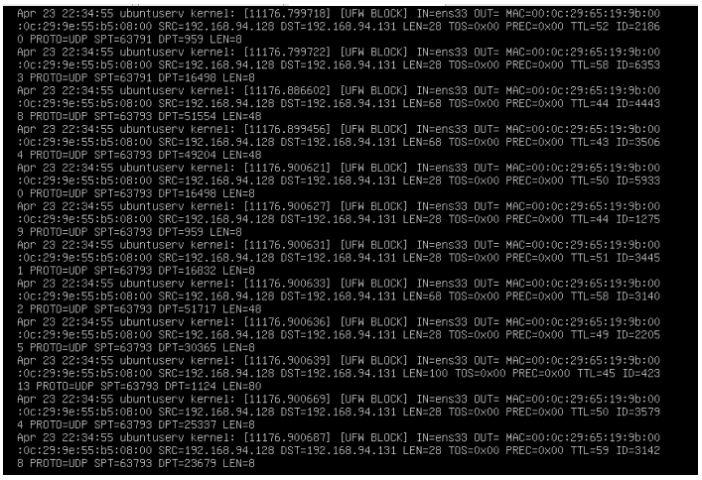
Détection :

```
Apr 24 19:09:58 ubuntuserv kernel: [  140.447837] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=55 ID=53389 PROTO=TCP SPT=60818 DPT=1033 WINDOW=1024 RES=0x00 ACK URGP=0
Apr 24 19:09:58 ubuntuserv kernel: [  140.449520] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=53 ID=20986 PROTO=TCP SPT=60818 DPT=407 WINDOW=1024 RES=0x00 ACK URGP=0
Apr 24 19:09:58 ubuntuserv kernel: [  140.452045] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=39 ID=30501 PROTO=TCP SPT=60818 DPT=1095 WINDOW=1024 RES=0x00 ACK URGP=0
Apr 24 19:09:58 ubuntuserv kernel: [  140.452052] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=59 ID=16796 PROTO=TCP SPT=60818 DPT=3851 WINDOW=1024 RES=0x00 ACK URGP=0
Apr 24 19:09:58 ubuntuserv kernel: [  140.522388] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=40 ID=11240 PROTO=TCP SPT=60818 DPT=9500 WINDOW=1024 RES=0x00 ACK URGP=0
Apr 24 19:09:58 ubuntuserv kernel: [  140.527848] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=43 ID=13895 PROTO=TCP SPT=60818 DPT=1658 WINDOW=1024 RES=0x00 ACK URGP=0
Apr 24 19:09:58 ubuntuserv kernel: [  140.528020] [UFW BLOCK] IN=ens33 OUT= MAC=00:0c:29:65:19:9b:00:0c:29:9e:55:b5:08:00 SRC=192.168.94.128 DST=192.168.94.131 LEN=40 TOS=0x00 PREC=0x00 TTL=43 ID=33194 PROTO=TCP SPT=60818 DPT=425 WINDOW=1024 RES=0x00 ACK URGP=0
```

nmap -sU : utilise le protocole UDP afin d'exploiter les services UDP (SNMP, DNS, DHCP,…)

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sU 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 00:34 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00051s latency).
All 1000 scanned ports on 192.168.94.131 are in ignored states.
Not shown: 1000 open|filtered udp ports (no-response)
MAC Address: 00:0C:29:65:19:9B (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.40 seconds
```

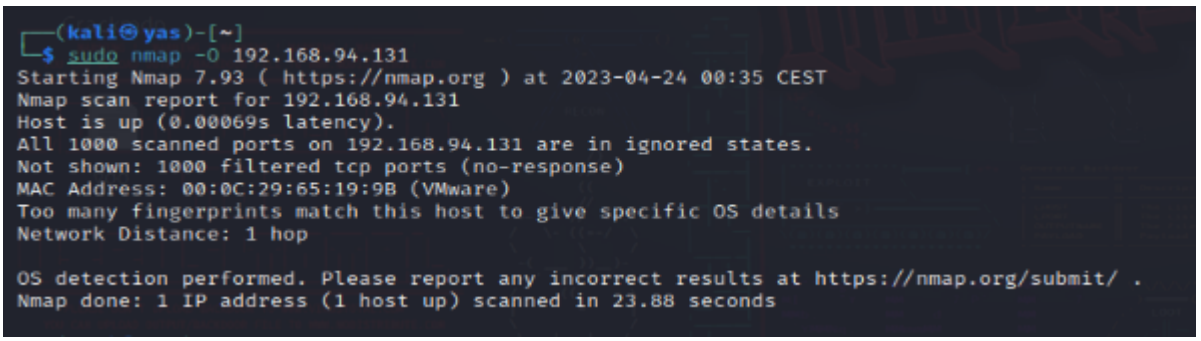
Détection : Évite le 3 ways handshake



Commandes	Ports trouvés ?	Scan détecté ?	Temps d'exécution :
nmap -sT	oui	oui	21.35 secondes
nmap -sS	oui	oui	21.67 secondes
nmap -sX	oui	oui	21.40 secondes
nmap -sN	oui	oui	21.50 secondes
nmap -sM	oui	oui	21.50 secondes
nmap -sF	oui	oui	21.54 secondes
nmap -sA	oui	oui	21.67 secondes
nmap -sU	oui	oui	21.40 secondes

Découverte de l'OS et des versions des services :

nmap -O : permet de déterminer la marque et la version du système d'exploitation en cours d'exécution.



nmap -A : pour la découverte des OS et services

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -A 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 00:36 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00064s latency).
All 1000 scanned ports on 192.168.94.131 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)
MAC Address: 00:0C:29:65:19:9B (VMware)
Too many fingerprints match this host to give specific OS details
Network Distance: 1 hop

TRACEROUTE
HOP RTT     ADDRESS
1   0.64 ms 192.168.94.131

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 29.19 seconds
```

Commandes	Scan détecté ?	Si détecté, détection partielle ?
nmap -O	Oui	Visible sur syslog
nmap -A	Oui	Visible sur syslog

Snort :

ping sweep:

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sT 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 15:26 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00056s latency).
All 1000 scanned ports on 192.168.94.131 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)
MAC Address: 00:0C:29:65:19:9B (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.43 seconds
```

Détection : Génère des log dans le fichier log de snort

```
04/24-13:27:07.471381  [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information
 Leak] [Priority: 2] {TCP} 192.168.94.128:51724 -> 192.168.94.131:161
04/24-13:27:07.571792  [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information
 Leak] [Priority: 2] {TCP} 192.168.94.128:51730 -> 192.168.94.131:161
04/24-13:27:07.975448  [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Info
rmation Leak] [Priority: 2] {TCP} 192.168.94.128:35624 -> 192.168.94.131:705
04/24-13:27:08.075434  [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Info
rmation Leak] [Priority: 2] {TCP} 192.168.94.128:35628 -> 192.168.94.131:705
```

SYN ping:

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sn -PS 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 21:38 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00083s latency).
MAC Address: 00:0C:29:65:19:9B (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.12 seconds
```

Détection : Aucun log n'a été généré.

Ack ping:

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sn -PA 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 15:37 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00035s latency).
MAC Address: 00:0C:29:65:19:9B (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.12 seconds
```

Détection : Assez discret car il génère peu de logs

```
04/24-13:38:00.321672  [**] [1:1917:6] SCAN UPnP service discover attempt [**] [Classification: Dete
ction of a Network Scan] [Priority: 3] {UDP} 192.168.94.1:53190 -> 239.255.255.250:1900
```

ARP ping:

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sn -PR 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 15:39 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00039s latency).
MAC Address: 00:0C:29:65:19:9B (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.33 seconds
```

Détection :

```
04/24-13:43:57.316423  [**] [1:1917:6] SCAN UPnP service discover attempt [**] [Classification: Dete
ction of a Network Scan] [Priority: 3] {UDP} 192.168.94.1:65471 -> 239.255.255.250:1900
04/24-13:43:58.324909  [**] [1:1917:6] SCAN UPnP service discover attempt [**] [Classification: Dete
ction of a Network Scan] [Priority: 3] {UDP} 192.168.94.1:65471 -> 239.255.255.250:1900
04/24-13:43:59.334720  [**] [1:1917:6] SCAN UPnP service discover attempt [**] [Classification: Dete
ction of a Network Scan] [Priority: 3] {UDP} 192.168.94.1:65471 -> 239.255.255.250:1900
04/24-13:44:00.343153  [**] [1:1917:6] SCAN UPnP service discover attempt [**] [Classification: Dete
ction of a Network Scan] [Priority: 3] {UDP} 192.168.94.1:65471 -> 239.255.255.250:1900
```

ICMP ping:

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sn -PP 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 15:42 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00054s latency).
MAC Address: 00:0C:29:65:19:9B (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.13 seconds
```

Détection :

```
04/24-13:45:26.816442  [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information
 Leak] [Priority: 2] {TCP} 192.168.94.128:57657 -> 192.168.94.131:161
04/24-13:45:26.916600  [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information
 Leak] [Priority: 2] {TCP} 192.168.94.128:57659 -> 192.168.94.131:161
04/24-13:45:38.718432  [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Info
rmation Leak] [Priority: 2] {TCP} 192.168.94.128:57657 -> 192.168.94.131:705
04/24-13:45:38.818852  [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Info
rmation Leak] [Priority: 2] {TCP} 192.168.94.128:57659 -> 192.168.94.131:705
04/24-13:45:57.324557  [**] [1:1917:6] SCAN UPnP service discover attempt [**] [Classification: Dete
ction of a Network Scan] [Priority: 3] {UDP} 192.168.94.1:52045 -> 239.255.255.250:1900
04/24-13:45:58.337965  [**] [1:1917:6] SCAN UPnP service discover attempt [**] [Classification: Dete
ction of a Network Scan] [Priority: 3] {UDP} 192.168.94.1:52045 -> 239.255.255.250:1900
04/24-13:45:59.348364  [**] [1:1917:6] SCAN UPnP service discover attempt [**] [Classification: Dete
ction of a Network Scan] [Priority: 3] {UDP} 192.168.94.1:52045 -> 239.255.255.250:1900
04/24-13:46:00.358372  [**] [1:1917:6] SCAN UPnP service discover attempt [**] [Classification: Dete
ction of a Network Scan] [Priority: 3] {UDP} 192.168.94.1:52045 -> 239.255.255.250:1900
```

TCP Syn:

```
┌──(kali㉿yas)-[~]
└─$ sudo nmap -sS 192.168.94.131
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 21:35 CEST
Nmap scan report for 192.168.94.131
Host is up (0.00053s latency).
All 1000 scanned ports on 192.168.94.131 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)
MAC Address: 00:0C:29:65:19:9B (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.52 seconds
```

Détection:

```
04/24-19:35:47.405135  [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Info
rmation Leak] [Priority: 2] {TCP} 192.168.94.128:37297 -> 192.168.94.131:705
04/24-19:35:47.503768  [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Info
rmation Leak] [Priority: 2] {TCP} 192.168.94.128:37299 -> 192.168.94.131:705
04/24-19:35:49.018035  [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information
 Leak] [Priority: 2] {TCP} 192.168.94.128:37297 -> 192.168.94.131:161
04/24-19:35:49.121219  [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information
 Leak] [Priority: 2] {TCP} 192.168.94.128:37299 -> 192.168.94.131:161
```

NULL : N’est pas détecté par SNORT

Netbios :

Cette commande n’a pas marché sur ma machine, malgré le fait que je sois en root.

```
┌──(kali㉿yas)-[/usr/bin]
└─$ sudo nbtscan 192.168.94.131/24
Doing NBT name scan for addresses from 192.168.94.131/24

IP address      NetBIOS Name    Server    User          MAC address
------------------------------------------------------------------
192.168.94.255  Sendto failed: Permission denied

┌──(kali㉿yas)-[/usr/bin]
└─$ sudo nbtscan 192.168.94.131
Doing NBT name scan for addresses from 192.168.94.131

IP address      NetBIOS Name    Server    User          MAC address
------------------------------------------------------------------
```

Détection de failles:

Voici l'adresse ip de metasploit-linux :

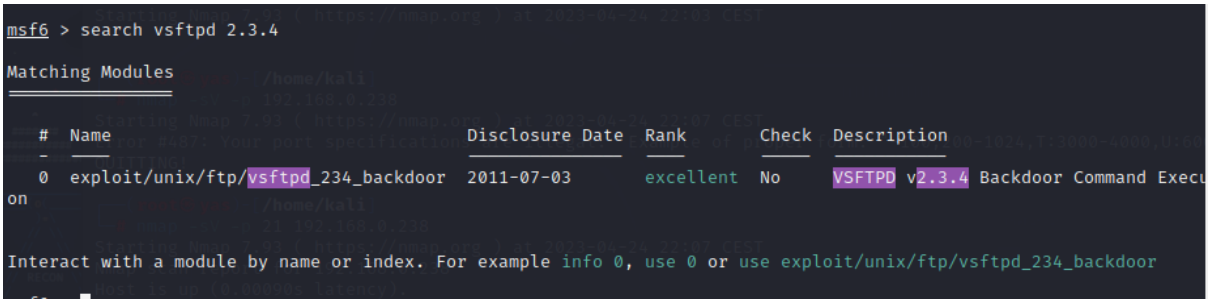
```
msfadmin@metasploitable:/$ ifconfig
eth0      Link encap:Ethernet  HWaddr 00:0c:29:1e:95:ba
          inet addr:192.168.0.238  Bcast:192.168.0.255  Mask:255.255.255.0
          inet6 addr: 2a02:2788:8e4:4f1:20c:29ff:fe1e:95ba/64 Scope:Global
          inet6 addr: fe80::20c:29ff:fe1e:95ba/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:230493 errors:840 dropped:1231 overruns:0 frame:0
          TX packets:229078 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:15349274 (14.6 MB)  TX bytes:12392097 (11.8 MB)
          Interrupt:17 Base address:0x2000

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:339 errors:0 dropped:0 overruns:0 frame:0
          TX packets:339 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:141001 (137.6 KB)  TX bytes:141001 (137.6 KB)

msfadmin@metasploitable:/$
```

Pour commencer je vais procéder à un scanning de port sur la machine victime (metasploit) pour pouvoir ensuite chercher une vulnérabilités.
J'ai trouvé le port 21 ouvert:

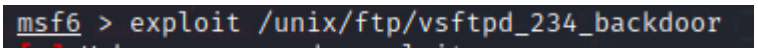
```
┌──(root㉿yas)-[/home/kali]
└─# nmap -sV -p 21 192.168.0.238
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 22:07 CEST
Nmap scan report for 192.168.0.238
Host is up (0.00090s latency).

PORT   STATE SERVICE VERSION
21/tcp open  ftp     vsftpd 2.3.4
Service Info: OS: Unix

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 1.02 seconds
```

Grâce à cette commande nous pouvons détecter le service et la version du port sélectionné. ici : vsftpd.2.3.4

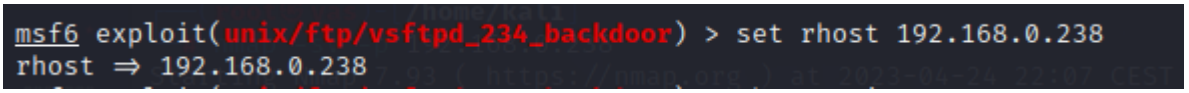
Nous allons nous rendre sur metasploit avec la commande : msfconsole et nous allons rechercher si la version qu'on a trouvé dispose de failles connues :



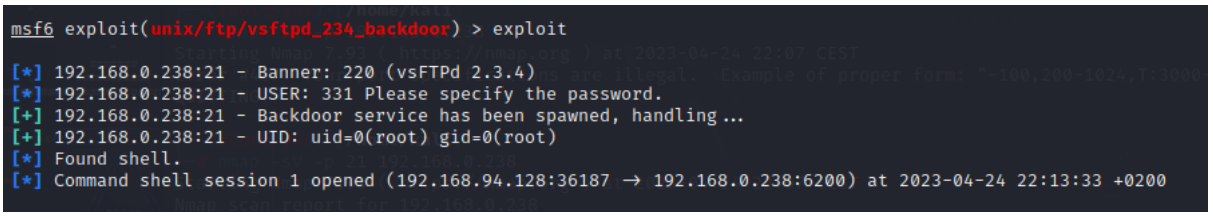
Elle dispose bien d'une faille et nous allons pouvoir l'exploiter avec :



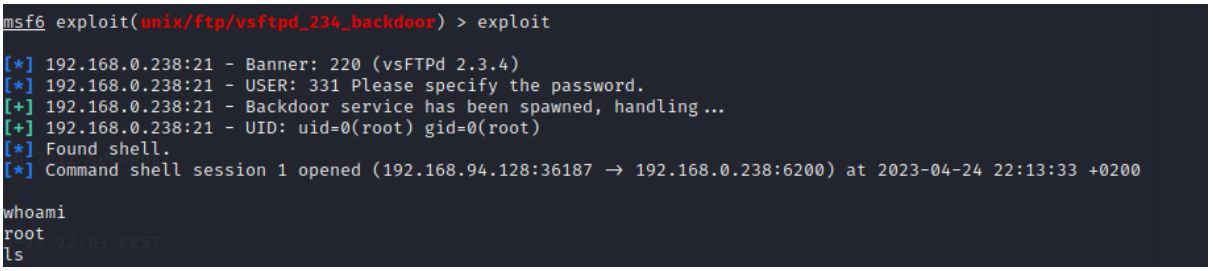
Nous allons spécifier le RHOST qui est le host ciblé avec la commande :



Maintenant nous pouvons exploiter la vulnérabilité avec "exploit" :



Nous sommes donc dans le système de la victime et nous pouvons donc écrire des commandes dans celle-ci :



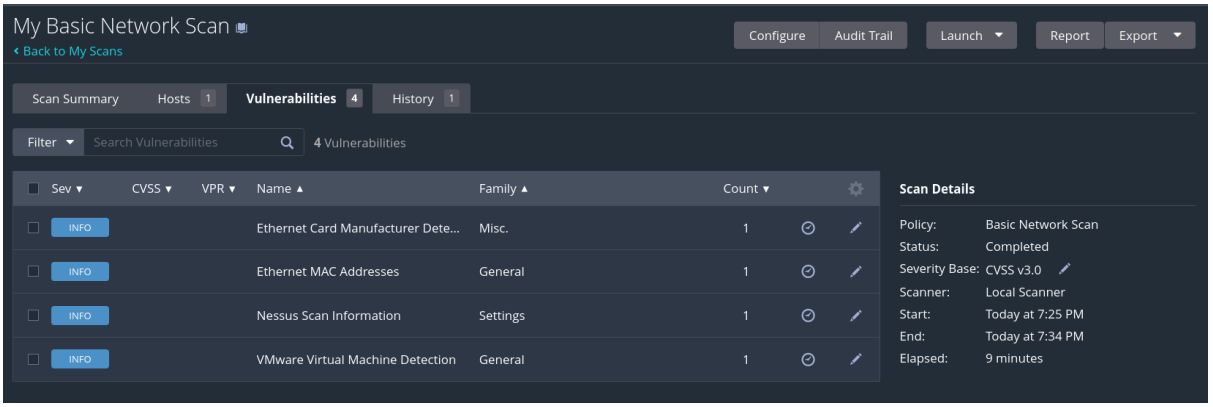
Je n'ai pas réussi à trouver des logs qui détectent cela car des centaines de logs sont générés chaque secondes et je n'ai pas trouvé quels étaient ceux qui proviennent du metasploit

Nmap:

Nmap –script nmap-vulners adresses_cibles

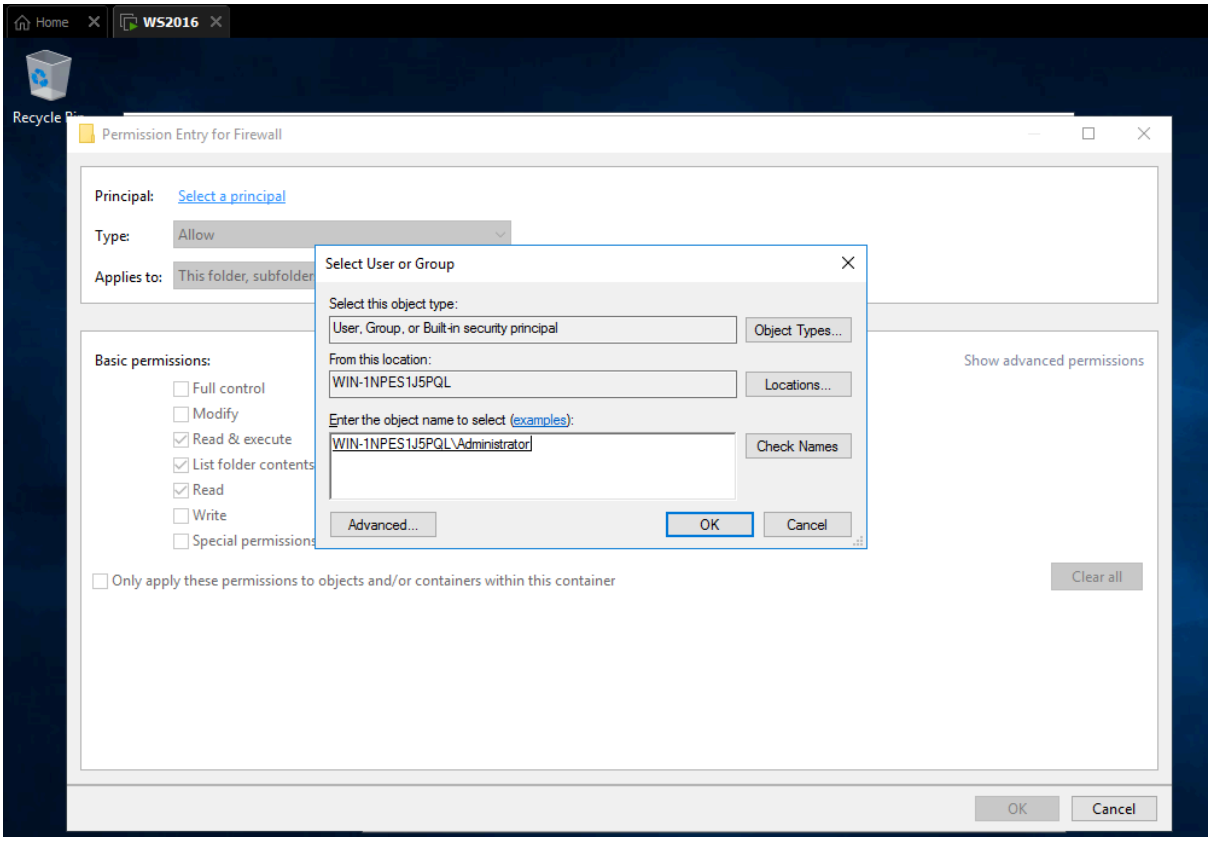
```
┌──(kali㉿yas)-[~]
└─$ sudo nmap --script broadcast-dhcp-discover.nse 192.168.131.94
Starting Nmap 7.93 ( https://nmap.org ) at 2023-04-24 01:45 CEST
Pre-scan script results:
| broadcast-dhcp-discover:
|   Response 1 of 1:
|     Interface: eth0
|     IP Offered: 192.168.94.132
|     DHCP Message Type: DHCPOFFER
|     Server Identifier: 192.168.94.254
|     IP Address Lease Time: 30m00s
|     Subnet Mask: 255.255.255.0
|     Router: 192.168.94.2
|     Domain Name Server: 192.168.94.2
|     Domain Name: localdomain
|     Broadcast Address: 192.168.94.255
|     NetBIOS Name Server: 192.168.94.2
|     Renewal Time Value: 15m00s
|_    Rebinding Time Value: 26m15s
Nmap scan report for 192.168.131.94
Host is up (0.00064s latency).
All 1000 scanned ports on 192.168.131.94 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)

Nmap done: 1 IP address (1 host up) scanned in 14.45 seconds
```

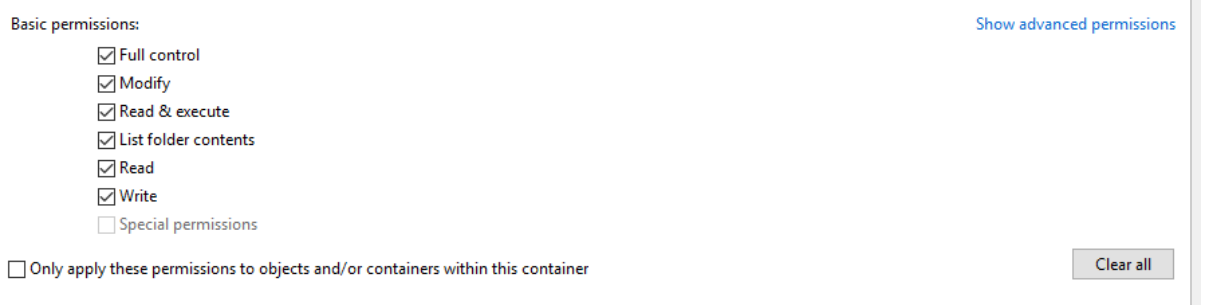
Nessus :



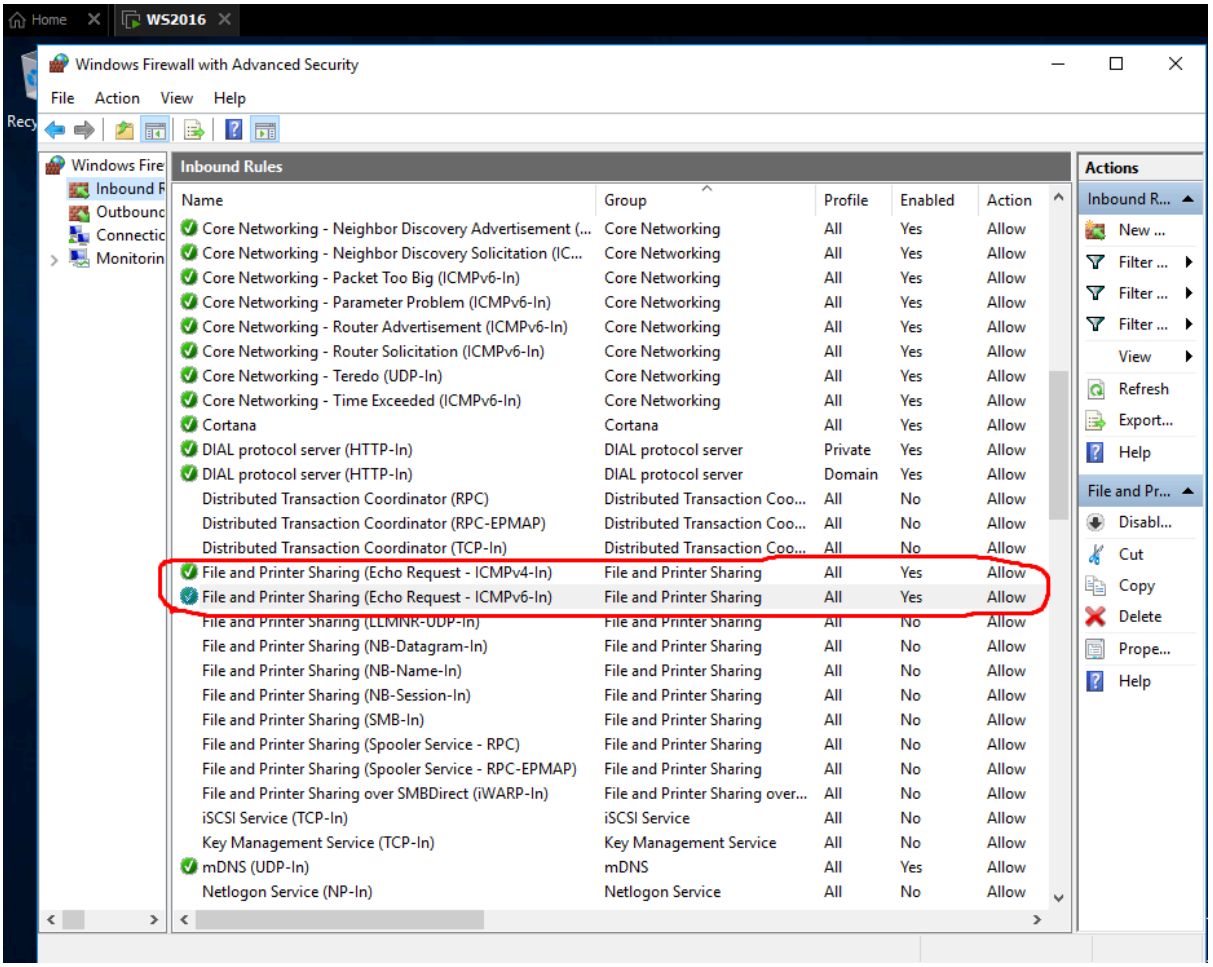
Windows server 2016 :

Autorisation sur le user des droits

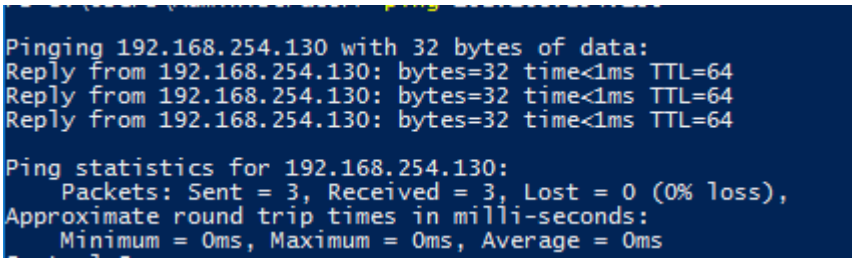




Pour l'envoie de ping depuis kali vers WS2016 sans erreur.



Ping de WS2016 vers Kali



Ping de Kali vers WS2016

```
┌──(kali㉿kali)-[~/Desktop]
└─$ ping 192.168.254.134
PING 192.168.254.134 (192.168.254.134) 56(84) bytes of data.
64 bytes from 192.168.254.134: icmp_seq=1 ttl=128 time=0.349 ms
64 bytes from 192.168.254.134: icmp_seq=2 ttl=128 time=0.307 ms
64 bytes from 192.168.254.134: icmp_seq=3 ttl=128 time=1.05 ms
64 bytes from 192.168.254.134: icmp_seq=4 ttl=128 time=1.03 ms
^C
── 192.168.254.134 ping statistics ──
4 packets transmitted, 4 received, 0% packet loss, time 3028ms
rtt min/avg/max/mdev = 0.307/0.684/1.048/0.356 ms
```

Nmap :

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap --script broadcast-dhcp-discover.nse 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 15:57 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00041s latency).
Not shown: 997 filtered tcp ports (no-response)
PORT    STATE SERVICE
135/tcp open  msrpc
139/tcp open  netbios-ssn
445/tcp open  microsoft-ds
MAC Address: 00:0C:29:AD:F2:2F (VMware)

Nmap done: 1 IP address (1 host up) scanned in 15.46 seconds
```

```
2023-04-24 21:58:16 ALLOW UDP 192.168.254.134 40.119.148.38 123 123 0 - - - - - - - SEND
```

Découverte des hôtes :

1. Ping scan : nmap –sn

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sn 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 13:38 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00028s latency).
MAC Address: 00:0C:29:AD:F2:2F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.13 seconds
```

```
#Version: 1.5
#Software: Microsoft Windows Firewall
#Time Format: Local
#Fields: date time action protocol src-ip dst-ip src-port dst-port size tcpflags tcpsyn tcpack tcpwin icmptype icmpc
```

2. TCP SYN ping : nmap –sn –PS

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sn -PS 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 13:47 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00038s latency).
MAC Address: 00:0C:29:AD:F2:2F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.11 seconds
```

```
#Version: 1.5
#Software: Microsoft Windows Firewall
#Time Format: Local
#Fields: date time action protocol src-ip dst-ip src-port dst-port size tcpflags tcpsyn tcpack tcpwin icmpty


2023-04-24 19:56:41 ALLOW ICMP fe80::c13b:f645:f74d:d011 ff02::16 - - 0 - - - - 143 0 - SEND
2023-04-24 19:56:41 ALLOW 2 192.168.254.134 224.0.0.22 - - 0 - - - - - - - SEND
2023-04-24 19:56:41 ALLOW UDP 192.168.254.134 239.255.255.250 49510 1900 0 - - - - - - - SEND
2023-04-24 19:56:41 ALLOW UDP 127.0.0.1 239.255.255.250 49511 1900 0 - - - - - - - SEND
2023-04-24 19:56:41 ALLOW UDP 127.0.0.1 239.255.255.250 49511 1900 0 - - - - - - - RECEIVE
2023-04-24 19:56:41 ALLOW UDP fe80::c13b:f645:f74d:d011 ff02::1:3 51846 5355 0 - - - - - - - SEND
2023-04-24 19:56:41 ALLOW UDP 192.168.254.134 224.0.0.252 51846 5355 0 - - - - - - - SEND
2023-04-24 19:56:41 ALLOW UDP 192.168.1.1 192.168.254.134 53905 49510 0 - - - - - - - RECEIVE
2023-04-24 19:56:44 ALLOW UDP 192.168.1.1 192.168.254.134 40063 49510 0 - - - - - - - RECEIVE
2023-04-24 19:56:47 ALLOW UDP 192.168.1.1 192.168.254.134 52992 49510 0 - - - - - - - RECEIVE
2023-04-24 19:56:50 ALLOW UDP 192.168.1.1 192.168.254.134 45245 49510 0 - - - - - - - RECEIVE
2023-04-24 19:56:53 ALLOW UDP 192.168.1.1 192.168.254.134 42957 49510 0 - - - - - - - RECEIVE
2023-04-24 19:56:56 ALLOW UDP 192.168.1.1 192.168.254.134 55206 49510 0 - - - - - - - RECEIVE
```

3. TCP Ack ping : nmap -sn –PA

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sn -PA 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 13:57 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00022s latency).
MAC Address: 00:0C:29:AD:F2:2F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.13 seconds
```

4. UDP ping : nmap –sn –PU

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sn -PU 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 13:58 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00022s latency).
MAC Address: 00:0C:29:AD:F2:2F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.13 seconds
```

5. ARP ping : nmap –sn –PR

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sn -PR 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 13:58 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00021s latency).
MAC Address: 00:0C:29:AD:F2:2F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.13 seconds
```

6. ICMP Ping (13) : nmap –sn –PP

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sn -PP 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 13:59 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00032s latency).
MAC Address: 00:0C:29:AD:F2:2F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.11 seconds
```

7. ICMP Ping (17) : nmap –sn –PM

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sn -PM 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 14:00 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00022s latency).
MAC Address: 00:0C:29:AD:F2:2F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.12 seconds
```

8. IP protocole ping : nmap –sn -PO

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sn -PO 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 14:00 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00022s latency).
MAC Address: 00:0C:29:AD:F2:2F (VMware)
Nmap done: 1 IP address (1 host up) scanned in 0.11 seconds
```

Commandes	Hôtes trouvés ?	Scan détecté ?
nmap -sn	Oui	Oui
nmap -sn -PS	Oui	Oui
nmap -sn -PA	Oui	Oui
nmap -sn -PU	Oui	Oui
nmap -sn -PR	Oui	Oui
nmap -sn -PP	Oui	Oui
nmap -sn -PM	Oui	Oui
nmap -sn -PO	Oui	Oui

Découverte des ports :

1. TCP connect : nmap –sT

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sT 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 14:02 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00044s latency).
Not shown: 997 filtered tcp ports (no-response)
PORT    STATE SERVICE
135/tcp open  msrpc
139/tcp open  netbios-ssn
445/tcp open  microsoft-ds
MAC Address: 00:0C:29:AD:F2:2F (VMware)

Nmap done: 1 IP address (1 host up) scanned in 4.27 seconds
```

File Edit Format View Help

```
#Fields: date time action protocol src-ip dst-ip src-port dst-port size tcpflags tcpsyn tcpack tcpwin icmpty


2023-04-24 19:56:41 ALLOW ICMP fe80::c13b:f645:f74d:d011 ff02::16 - - 0 - - - - 143 0 - SEND
2023-04-24 19:56:41 ALLOW 2 192.168.254.134 224.0.0.22 - - 0 - - - - - - - SEND
2023-04-24 19:56:41 ALLOW UDP 192.168.254.134 239.255.255.250 49510 1900 0 - - - - - - - - SEND
2023-04-24 19:56:41 ALLOW UDP 127.0.0.1 239.255.255.250 49511 1900 0 - - - - - - - SEND
2023-04-24 19:56:41 ALLOW UDP 127.0.0.1 239.255.255.250 49511 1900 0 - - - - - - - RECEIVE
2023-04-24 19:56:41 ALLOW UDP fe80::c13b:f645:f74d:d011 ff02::1:3 51846 5355 0 - - - - - - - - SEND
2023-04-24 19:56:41 ALLOW UDP 192.168.254.134 224.0.0.252 51846 5355 0 - - - - - - - SEND
2023-04-24 19:56:41 ALLOW UDP 192.168.1.1 192.168.254.134 53905 49510 0 - - - - - - - RECEIVE
2023-04-24 19:56:44 ALLOW UDP 192.168.1.1 192.168.254.134 40063 49510 0 - - - - - - - RECEIVE
2023-04-24 19:56:47 ALLOW UDP 192.168.1.1 192.168.254.134 52992 49510 0 - - - - - - - RECEIVE
2023-04-24 19:56:50 ALLOW UDP 192.168.1.1 192.168.254.134 45245 49510 0 - - - - - - - RECEIVE
2023-04-24 19:56:53 ALLOW UDP 192.168.1.1 192.168.254.134 42957 49510 0 - - - - - - - RECEIVE
2023-04-24 19:56:56 ALLOW UDP 192.168.1.1 192.168.254.134 55206 49510 0 - - - - - - - RECEIVE
2023-04-24 19:57:52 ALLOW UDP 192.168.254.1 239.255.255.250 52225 1900 0 - - - - - - - RECEIVE
2023-04-24 19:58:48 ALLOW UDP 192.168.254.134 40.119.148.38 123 123 0 - - - - - - - SEND
2023-04-24 20:02:39 ALLOW TCP 192.168.254.130 192.168.254.134 34652 135 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:02:40 ALLOW TCP 192.168.254.130 192.168.254.134 34654 135 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:02:40 ALLOW TCP 192.168.254.130 192.168.254.134 48828 445 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:02:40 ALLOW TCP 192.168.254.130 192.168.254.134 57540 139 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:02:42 ALLOW TCP 192.168.254.130 192.168.254.134 34658 135 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:02:43 ALLOW TCP 192.168.254.130 192.168.254.134 34672 135 0 - 0 0 0 - - - RECEIVE
```

2. TCP SYN : nmap -sS

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sS 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 14:04 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00027s latency).
Not shown: 997 filtered tcp ports (no-response)
PORT    STATE SERVICE
135/tcp open  msrpc
139/tcp open  netbios-ssn
445/tcp open  microsoft-ds
MAC Address: 00:0C:29:AD:F2:2F (VMware)

Nmap done: 1 IP address (1 host up) scanned in 4.64 seconds
```

```
2023-04-24 20:02:39 ALLOW TCP 192.168.254.130 192.168.254.134 34652 135 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:02:40 ALLOW TCP 192.168.254.130 192.168.254.134 34654 135 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:02:40 ALLOW TCP 192.168.254.130 192.168.254.134 48828 445 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:02:40 ALLOW TCP 192.168.254.130 192.168.254.134 57540 139 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:02:42 ALLOW TCP 192.168.254.130 192.168.254.134 34658 135 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:02:43 ALLOW TCP 192.168.254.130 192.168.254.134 34672 135 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:02:45 ALLOW UDP 192.168.254.134 192.168.254.255 138 138 0 - - - - - - - SEND
```

3. Xmas tree : nmap -sX

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sX 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 14:05 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00022s latency).
All 1000 scanned ports on 192.168.254.134 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:AD:F2:2F (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.40 seconds
```

```
2023-04-24 20:04:41 ALLOW UDP 192.168.254.134 192.168.254.2 137 137 0 - - - - - - - SEND
```

4. Null : nmap -sN

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sN 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 14:06 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00022s latency).
All 1000 scanned ports on 192.168.254.134 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:AD:F2:2F (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.41 seconds
```

5. Maimon : nmap -sM

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sM 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 14:07 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00022s latency).
All 1000 scanned ports on 192.168.254.134 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:AD:F2:2F (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.39 seconds
```

```
2023-04-24 20:07:20 ALLOW UDP 192.168.254.134 40.119.148.38 123 123 0 - - - - - - - SEND
```

6. TCP Fin : nmap -sF

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sF 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 14:08 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00023s latency).
All 1000 scanned ports on 192.168.254.134 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:0C:29:AD:F2:2F (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.40 seconds
```

```
2023-04-24 20:08:23 ALLOW UDP 192.168.254.134 192.168.254.2 61039 53 0 - - - - - - - SEND
2023-04-24 20:08:23 ALLOW TCP 192.168.254.134 20.189.173.2 49745 443 0 - 0 0 0 - - - SEND
```

7. TCP-ACK : nmap -sA

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sA 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 14:10 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00026s latency).
All 1000 scanned ports on 192.168.254.134 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)
MAC Address: 00:0C:29:AD:F2:2F (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.43 seconds
```

8. UDP : nmap -sU

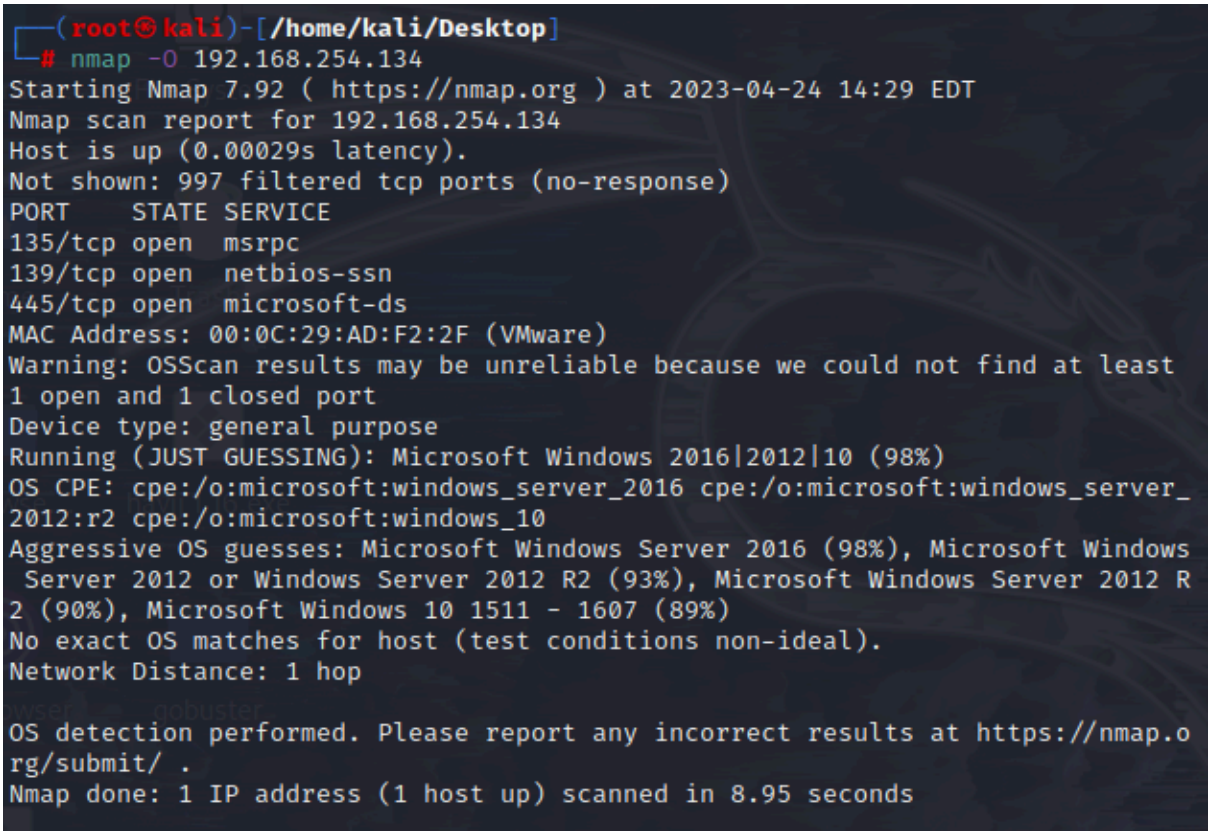
```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -sU 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 14:11 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00024s latency).
Not shown: 999 open|filtered udp ports (no-response)
PORT    STATE SERVICE
137/udp open  netbios-ns
MAC Address: 00:0C:29:AD:F2:2F (VMware)

Nmap done: 1 IP address (1 host up) scanned in 13.10 seconds
```

```
2023-04-24 20:11:09 ALLOW UDP 192.168.254.130 192.168.254.134 48892 123 0 - - - - - - - RECEIVE
2023-04-24 20:11:09 ALLOW UDP 192.168.254.130 192.168.254.134 48894 123 0 - - - - - - - RECEIVE
2023-04-24 20:11:10 ALLOW UDP 192.168.254.130 192.168.254.134 48892 5355 0 - - - - - - - RECEIVE
2023-04-24 20:11:10 ALLOW UDP 192.168.254.130 192.168.254.134 48894 5355 0 - - - - - - - RECEIVE
2023-04-24 20:11:14 ALLOW UDP 192.168.254.130 192.168.254.134 48892 1900 0 - - - - - - - RECEIVE
2023-04-24 20:11:14 ALLOW UDP 192.168.254.130 192.168.254.134 48894 1900 0 - - - - - - - RECEIVE
2023-04-24 20:11:15 ALLOW UDP 192.168.254.130 192.168.254.134 48892 5353 0 - - - - - - - RECEIVE
2023-04-24 20:11:15 ALLOW UDP 192.168.254.130 192.168.254.134 48894 5353 0 - - - - - - - RECEIVE
2023-04-24 20:11:15 ALLOW UDP 192.168.254.130 192.168.254.134 48892 137 0 - - - - - - - RECEIVE
2023-04-24 20:11:16 ALLOW UDP 192.168.254.130 192.168.254.134 48892 5050 0 - - - - - - - RECEIVE
2023-04-24 20:11:16 ALLOW UDP 192.168.254.130 192.168.254.134 48894 5050 0 - - - - - - - RECEIVE
2023-04-24 20:11:16 ALLOW UDP 192.168.254.130 192.168.254.134 48892 500 0 - - - - - - - RECEIVE
2023-04-24 20:11:16 ALLOW UDP 192.168.254.130 192.168.254.134 48894 500 0 - - - - - - - RECEIVE
2023-04-24 20:11:17 ALLOW UDP 192.168.254.130 192.168.254.134 48892 138 0 - - - - - - - RECEIVE
2023-04-24 20:11:17 ALLOW UDP 192.168.254.130 192.168.254.134 48897 137 0 - - - - - - - RECEIVE
2023-04-24 20:11:17 ALLOW UDP 192.168.254.130 192.168.254.134 48894 138 0 - - - - - - - RECEIVE
```

Commandes	Ports trouvés ?	Scan détecté ?
nmap -sT	oui	oui
nmap -sS	oui	oui
nmap -sX	oui	oui
nmap -sN	oui	oui
nmap -sM	oui	oui
nmap -sF	oui	oui
nmap -sA	oui	oui
nmap -sU	oui	oui

Découverte de l'OS et des versions des services :

1-nmap -O



```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nmap -O 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 14:29 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00029s latency).
Not shown: 997 filtered tcp ports (no-response)
PORT    STATE SERVICE
135/tcp open  msrpc
139/tcp open  netbios-ssn
445/tcp open  microsoft-ds
MAC Address: 00:0C:29:AD:F2:2F (VMware)
Warning: OSScan results may be unreliable because we could not find at least
1 open and 1 closed port
Device type: general purpose
Running (JUST GUESSING): Microsoft Windows 2016|2012|10 (98%)
OS CPE: cpe:/o:microsoft:windows_server_2016 cpe:/o:microsoft:windows_server_
2012:r2 cpe:/o:microsoft:windows_10
Aggressive OS guesses: Microsoft Windows Server 2016 (98%), Microsoft Windows
 Server 2012 or Windows Server 2012 R2 (93%), Microsoft Windows Server 2012 R
2 (90%), Microsoft Windows 10 1511 - 1607 (89%)
No exact OS matches for host (test conditions non-ideal).
Network Distance: 1 hop

OS detection performed. Please report any incorrect results at https://nmap.o
rg/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 8.95 seconds
```

```
2023-04-24 20:29:35 ALLOW ICMP 192.168.254.130 192.168.254.134 - - 0 - - - - 8 9 - RECEIVE
2023-04-24 20:29:35 ALLOW ICMP 192.168.254.130 192.168.254.134 - - 0 - - - - 8 0 - RECEIVE
2023-04-24 20:29:37 ALLOW ICMP 192.168.254.130 192.168.254.134 - - 0 - - - - 8 9 - RECEIVE
2023-04-24 20:29:37 ALLOW ICMP 192.168.254.130 192.168.254.134 - - 0 - - - - 8 0 - RECEIVE
```

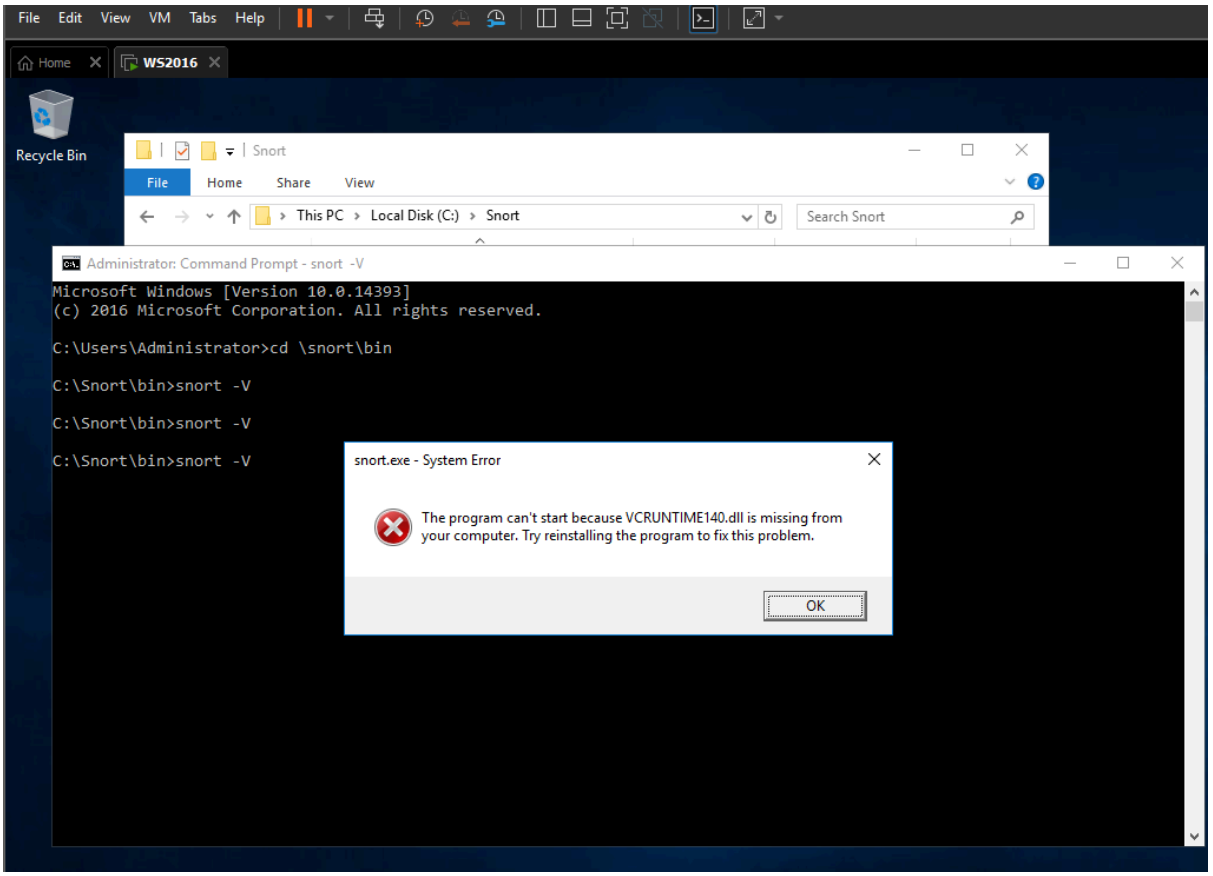
2-nmap-A

```
└─# nmap -A 192.168.254.134
Starting Nmap 7.92 ( https://nmap.org ) at 2023-04-24 14:30 EDT
Nmap scan report for 192.168.254.134
Host is up (0.00030s latency).
Not shown: 997 filtered tcp ports (no-response)
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 Server 2008 R2 - 2012 microsoft-
ds
MAC Address: 00:0C:29:AD:F2:2F (VMware)
Warning: OSScan results may be unreliable because we could not find at least
1 open and 1 closed port
Device type: general purpose
Running: Microsoft Windows 2016
OS CPE: cpe:/o:microsoft:windows_server_2016
OS details: Microsoft Windows Server 2016
Network Distance: 1 hop
Service Info: OSs: Windows, Windows Server 2008 R2 - 2012; CPE: cpe:/o:micros
oft:windows

Host script results:
| smb2-security-mode:
|   3.1.1:
|_    Message signing enabled but not required
|_nbstat: NetBIOS name: WIN-1NPES1J5PQL, NetBIOS user: <unknown>, NetBIOS MAC
: 00:0c:29:ad:f2:2f (VMware)
| smb-security-mode:
|   account_used: guest
|   authentication_level: user
|   challenge_response: supported
|_  message_signing: disabled (dangerous, but default)
| smb2-time:
|   date: 2023-04-24T18:31:06
|_  start_date: 2023-04-24T17:11:41

TRACEROUTE
HOP RTT     ADDRESS
1   0.30 ms 192.168.254.134

OS and Service detection performed. Please report any incorrect results at ht
tps://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 53.57 seconds

┌──(root㉿kali)-[/home/kali/Desktop]
└─#
```

```
2023-04-24 20:30:57 ALLOW TCP 192.168.254.130 192.168.254.134 34674 135 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:30:57 ALLOW TCP 192.168.254.130 192.168.254.134 57558 139 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:30:57 ALLOW TCP 192.168.254.130 192.168.254.134 48840 445 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:31:04 ALLOW TCP 192.168.254.130 192.168.254.134 34678 135 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:31:04 ALLOW TCP 192.168.254.130 192.168.254.134 57560 139 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:31:04 ALLOW ICMP 192.168.254.130 192.168.254.134 - - 0 - - - - 8 9 - RECEIVE
2023-04-24 20:31:04 ALLOW ICMP 192.168.254.130 192.168.254.134 - - 0 - - - - 8 0 - RECEIVE
2023-04-24 20:31:05 ALLOW UDP 192.168.254.130 192.168.254.134 54488 137 0 - - - - - - - RECEIVE
2023-04-24 20:31:05 ALLOW UDP 192.168.254.130 192.168.254.134 34681 137 0 - - - - - - - RECEIVE
2023-04-24 20:31:05 ALLOW TCP 192.168.254.130 192.168.254.134 48842 445 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:31:05 ALLOW TCP 192.168.254.130 192.168.254.134 48844 445 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:31:05 ALLOW TCP 192.168.254.130 192.168.254.134 48846 445 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:31:06 ALLOW TCP 192.168.254.130 192.168.254.134 48848 445 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:31:15 ALLOW TCP 192.168.254.130 192.168.254.134 48850 445 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:31:15 ALLOW TCP 192.168.254.130 192.168.254.134 48854 445 0 - 0 0 0 - - - RECEIVE
2023-04-24 20:31:15 ALLOW TCP 192.168.254.130 192.168.254.134 48856 445 0 - 0 0 0 - - - RECEIVE
```

Commandes	Scan détecté ?	Si détecté, détection partielle ?
nmap -O	Oui	pfirewall.log
nmap -A	Oui	pfirewall.log

Snort :

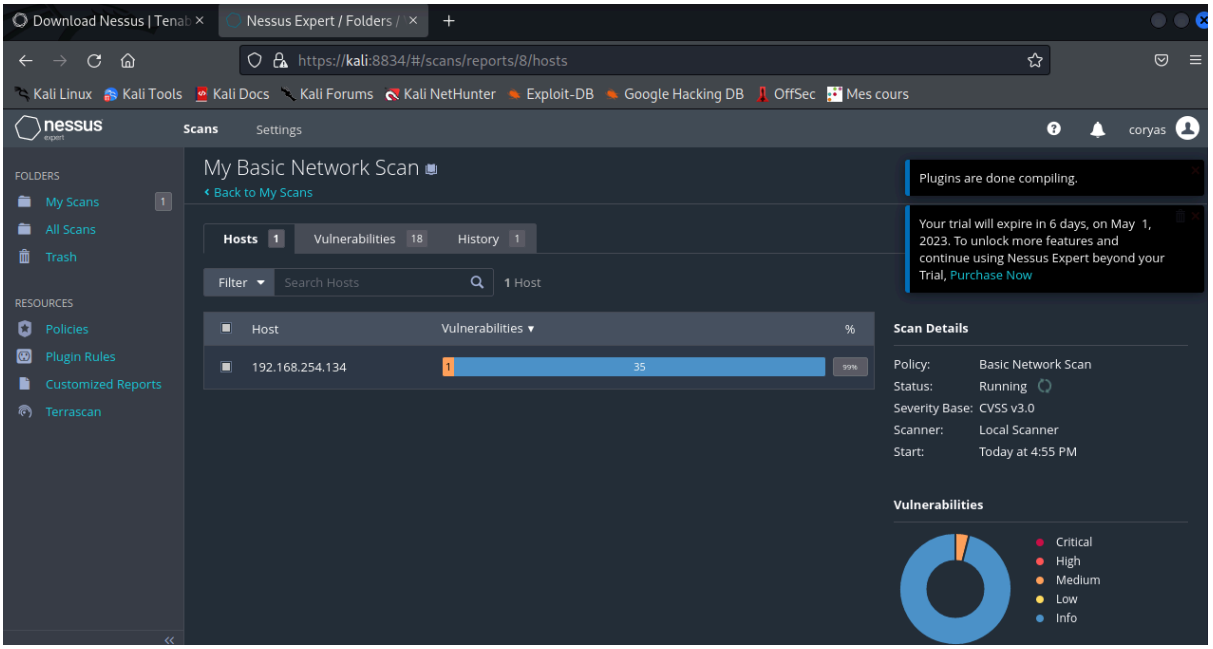


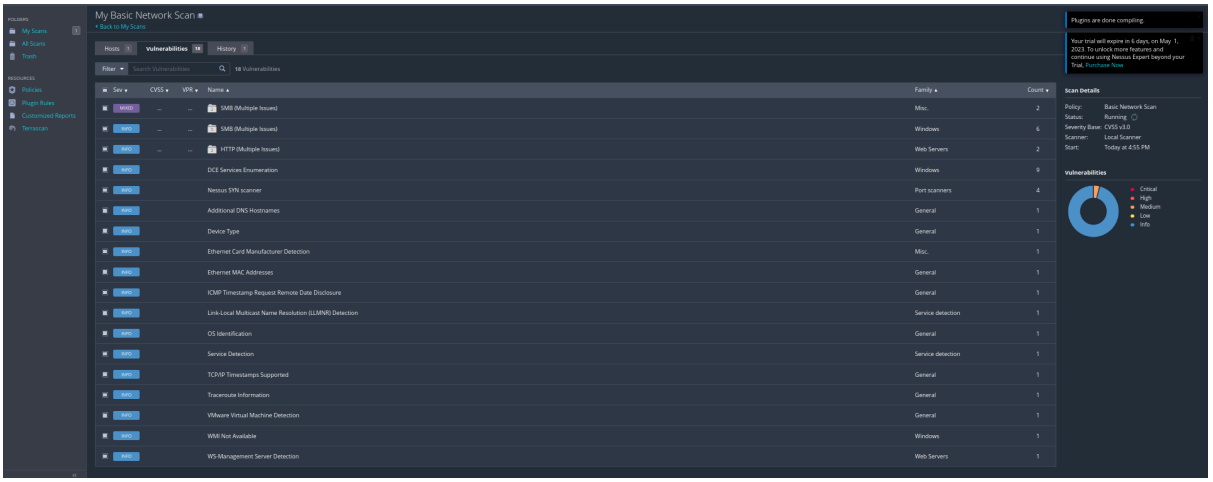
Netbios :

```
┌──(root㉿kali)-[/home/kali/Desktop]
└─# nbtscan -rvh 192.168.254.134
Doing NBT name scan for addresses from 192.168.254.134

NetBIOS Name Table for Host 192.168.254.134:

Incomplete packet, 155 bytes long.
Name             Service          Type
----------------------------------------------
WIN-1NPES1J5PQL  Workstation Service
WORKGROUP        Domain Name
WIN-1NPES1J5PQL  File Server Service

Adapter address: 00:0c:29:ad:f2:2f
----------------------------------------------
```

```
2023-04-24 21:49:52 ALLOW UDP 192.168.254.130 192.168.254.134 137 137 0 - - - - - - - RECEIVE
```

Nessus :





Documentation utilisée pour les commandes nmap :
https://nmap.org/book/man-briefoptions.html