



12 DE OCTUBRE DE 2023

TAREA #988

SISTEMAS OPERATIVOS

YOSHUA R. MORENO ARREDODNO

JIMENEZ SANCHES ISMAEL



3. Listar el directorio Raíz.

```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)-[~]  
$ ls /  
bin  Documents  initrd.img  lib32  lost+found  opt  run  swapfile  usr  vmlinuz.old  
boot  etc  initrd.img.old  lib64  media  proc  sbin  sys  var  
dev  home  lib  libx32  mnt  root  srv  tmp  vmlinuz
```

4. Cambiar al directorio Raíz.

```
(kali@kali)-[~]  
$ cd /  
(kali@kali)-[/]  
$
```

5. Verificar el directorio actual

```
(kali@kali)-[/]  
$ pwd  
/  
(kali@kali)-[/]  
$
```

6. Crear un directorio “prueba” en /home

```
(kali@kali)-[/]  
$ mkdir home/prueba  
mkdir: cannot create directory 'home/prueba': File exists  
(kali@kali)-[/]  
$
```

7. Crear un archivo “test” en directorio /home/prueba

```
(kali@kali)-[/home/prueba]  
$ sudo touch test.txt  
(kali@kali)-[/home/prueba]  
$ dir  
test.txt
```

8. Verificar el usuario actual

```
(kali@kali)-[/home/prueba]  
$ whoami  
kali
```

9. Mostrar el contenido del archivo /root/.bash_history

```
(kali㉿kali)-[/home/prueba]
$ sudo cat /root/.bash_history
cat: /root/.bash_history: No such file or directory

(kali㉿kali)-[/home/prueba]
$ sudo less /root/.bash_history
/root/.bash_history: No such file or directory
```

10. Copiar el archivo "test" a /root

```
(kali㉿kali)-[/home/prueba]
$ sudo cp /home/prueba/test.txt /root/
```

11. Eliminar el archivo "test" de /home/prueba

```
(kali㉿kali)-[/home/prueba]
$ sudo rm home/prueba/test
rm: cannot remove 'home/prueba/test': No such file or directory
```

12. Mover /root/test a raíz

```
(kali㉿kali)-[/home/prueba]
$ sudo mv /root/test /
mv: cannot stat '/root/test': No such file or directory
```

13. Hacer un ping a www.google.com

```
(kali㉿kali)-[/home/prueba]
$ ping www.google.com
PING www.google.com (142.250.189.132) 56(84) bytes of data.
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=1 ttl=117 time=25.3 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=2 ttl=117 time=28.7 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=3 ttl=117 time=24.3 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=4 ttl=117 time=22.7 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=5 ttl=117 time=24.3 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=6 ttl=117 time=26.6 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=7 ttl=117 time=42.6 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=8 ttl=117 time=38.7 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=9 ttl=117 time=22.7 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=10 ttl=117 time=23.0 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=11 ttl=117 time=22.2 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=12 ttl=117 time=22.9 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=13 ttl=117 time=24.8 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=14 ttl=117 time=79.3 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=15 ttl=117 time=141 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=16 ttl=117 time=22.8 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=17 ttl=117 time=22.3 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=18 ttl=117 time=54.8 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=19 ttl=117 time=22.4 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=20 ttl=117 time=21.1 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=21 ttl=117 time=24.1 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=22 ttl=117 time=24.2 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=23 ttl=117 time=23.7 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=24 ttl=117 time=22.8 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=25 ttl=117 time=21.2 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=26 ttl=117 time=23.4 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=27 ttl=117 time=22.2 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=28 ttl=117 time=23.0 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=29 ttl=117 time=24.9 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=30 ttl=117 time=22.7 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=31 ttl=117 time=24.4 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=32 ttl=117 time=23.1 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=33 ttl=117 time=21.1 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=34 ttl=117 time=23.1 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=35 ttl=117 time=24.7 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=36 ttl=117 time=21.5 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=37 ttl=117 time=23.4 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=38 ttl=117 time=24.1 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=39 ttl=117 time=22.1 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=40 ttl=117 time=26.3 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=41 ttl=117 time=22.5 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=42 ttl=117 time=23.2 ms
64 bytes from mia09s26-in-f4.1e100.net (142.250.189.132): icmp_seq=43 ttl=117 time=22.5 ms
```

14. Mostrar la configuración de red del servidor

```
(kali㉿kali)-[/home/prueba]
$ ip route | grep default
default via 10.0.2.2 dev eth0 proto dhcp src 10.0.2.15 metric 100

(kali㉿kali)-[/home/prueba]
$
```

15. Usar el comando netstat

```
(kali㉿kali)-[/home/prueba]
$ netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
udp        0      0 10.0.2.15:bootpc       10.0.2.2:bootps        ESTABLISHED

Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags   Type       State         I-Node  Path
unix   3      [ ]     STREAM    CONNECTED    19026    /run/user/1000/bus
unix   3      [ ]     STREAM    CONNECTED    20863
unix   3      [ ]     STREAM    CONNECTED    20505    /run/user/1000/at-spi/bus_0
unix   3      [ ]     STREAM    CONNECTED    19808
unix   2      [ ]     DGRAM     CONNECTED    17253
unix   3      [ ]     STREAM    CONNECTED    20625
unix   3      [ ]     STREAM    CONNECTED    17378    /run/dbus/system_bus_socket
unix   3      [ ]     STREAM    CONNECTED    20653
unix   3      [ ]     STREAM    CONNECTED    22610    @/tmp/.ICE-unix/873
unix   3      [ ]     STREAM    CONNECTED    19437
unix   3      [ ]     STREAM    CONNECTED    16767
unix   3      [ ]     STREAM    CONNECTED    19878
unix   3      [ ]     STREAM    CONNECTED    19404    /run/user/1000/at-spi/bus_0
unix   3      [ ]     STREAM    CONNECTED    19582    @/tmp/.X11-unix/X0
unix   3      [ ]     STREAM    CONNECTED    20605    @/tmp/.X11-unix/X0
unix   2      [ ]     DGRAM     CONNECTED    20820
unix   3      [ ]     STREAM    CONNECTED    19814
unix   2      [ ]     DGRAM     CONNECTED    15210
unix   3      [ ]     STREAM    CONNECTED    19383    /run/user/1000/at-spi/bus_0
unix   3      [ ]     STREAM    CONNECTED    19377    @/tmp/.X11-unix/X0
unix   3      [ ]     STREAM    CONNECTED    19781    /run/user/1000/at-spi/bus_0
unix   3      [ ]     STREAM    CONNECTED    18195    /run/dbus/system_bus_socket
unix   3      [ ]     STREAM    CONNECTED    19864    @/tmp/.X11-unix/X0
unix   3      [ ]     STREAM    CONNECTED    19197
unix   3      [ ]     STREAM    CONNECTED    19276    /run/user/1000/at-spi/bus_0
unix   3      [ ]     STREAM    CONNECTED    20731    /run/user/1000/bus
unix   3      [ ]     STREAM    CONNECTED    20580    /run/systemd/journal/stdout
unix   3      [ ]     STREAM    CONNECTED    20556    @/tmp/.X11-unix/X0
unix   3      [ ]     STREAM    CONNECTED    19867    @/tmp/.ICE-unix/873
unix   3      [ ]     STREAM    CONNECTED    19793
unix   3      [ ]     STREAM    CONNECTED    19658
unix   3      [ ]     STREAM    CONNECTED    16923
unix   3      [ ]     STREAM    CONNECTED    19434    /run/user/1000/at-spi/bus_0
unix   3      [ ]     STREAM    CONNECTED    19340    @/tmp/.X11-unix/X0
unix   3      [ ]     STREAM    CONNECTED    17375    /run/dbus/system_bus_socket
unix   3      [ ]     STREAM    CONNECTED    20806    /run/user/1000/bus
unix   3      [ ]     STREAM    CONNECTED    19827
unix   3      [ ]     STREAM    CONNECTED    16784
unix   3      [ ]     STREAM    CONNECTED    20611    /run/user/1000/at-spi/bus_0
unix   3      [ ]     STREAM    CONNECTED    19729    /run/user/1000/at-spi/bus_0
unix   3      [ ]     STREAM    CONNECTED    19045    /run/user/1000/bus
unix   3      [ ]     DGRAM     CONNECTED    15626
unix   3      [ ]     STREAM    CONNECTED    19769    /run/user/1000/at-spi/bus_0
```


16. Usar el comando top

```
(kali㉿kali)-[/home/prueba]
$ top
top - 20:14:02 up 26 min, 1 user, load average: 0.17, 0.08, 0.03
Tasks: 152 total, 1 running, 150 sleeping, 1 stopped, 0 zombie
%Cpu(s): 0.5 us, 1.2 sy, 0.0 ni, 98.3 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 1967.1 total, 849.2 free, 758.6 used, 521.8 buff/cache
MiB Swap: 1024.0 total, 1024.0 free, 0.0 used. 1208.4 avail Mem

  PID USER      PR  NI  VIRT  RES  SHR S %CPU  %MEM    TIME+  COMMAND
  609 root        20   0 417316 132540 58656 S   1.3   6.6   0:24.55 Xorg
 2057 kali        20   0 447912 103756 84592 S   0.7   5.2   0:05.03 qterminal
   15 root        20   0      0      0      0 I   0.3   0.0   0:00.62 rcu_preempt
  946 kali        20   0 217968  3200  2816 S   0.3   0.2   0:03.57 VBoxClient
 1000 kali        20   0 1029124 116936 79684 S   0.3   5.8   0:07.86 xfwm4
 1050 kali        20   0 549212  47176 36092 S   0.3   2.3   0:02.66 xfce4-panel
 1069 kali        20   0 277584  32144 19584 S   0.3   1.6   0:04.57 panel-13-cpugra
 1121 kali        20   0 470800  49512 33628 S   0.3   2.5   0:02.05 xfce4-notifyd
14374 kali        20   0 11740   5376  3200 R   0.3   0.3   0:00.02 top
    1 root        20   0  21220  12668  9340 S   0.0   0.6   0:01.35 systemd
    2 root        20   0      0      0      0 S   0.0   0.0   0:00.00 kthreadd
    3 root         0 -20      0      0      0 I   0.0   0.0   0:00.00 rcu_gp
    4 root         0 -20      0      0      0 I   0.0   0.0   0:00.00 rcu_par_gp
    5 root         0 -20      0      0      0 I   0.0   0.0   0:00.00 slub_flushwq
    6 root         0 -20      0      0      0 I   0.0   0.0   0:00.00 netns
   10 root         0 -20      0      0      0 I   0.0   0.0   0:00.00 mm_percpu_wq
   11 root        20   0      0      0      0 I   0.0   0.0   0:00.00 rcu_tasks_kthread
   12 root        20   0      0      0      0 I   0.0   0.0   0:00.00 rcu_tasks_rude_kthread
   13 root        20   0      0      0      0 I   0.0   0.0   0:00.00 rcu_tasks_trace_kthread
   14 root        20   0      0      0      0 S   0.0   0.0   0:00.14 ksoftirqd/0
   16 root        rt    0      0      0      0 S   0.0   0.0   0:00.01 migration/0
   17 root       -51   0      0      0      0 S   0.0   0.0   0:00.00 idle_inject/0
   19 root        20   0      0      0      0 S   0.0   0.0   0:00.00 cpuhp/0
   20 root        20   0      0      0      0 S   0.0   0.0   0:00.00 cpuhp/1
   21 root       -51   0      0      0      0 S   0.0   0.0   0:00.00 idle_inject/1
   22 root        rt    0      0      0      0 S   0.0   0.0   0:00.14 migration/1
   23 root        20   0      0      0      0 S   0.0   0.0   0:00.16 ksoftirqd/1
   25 root         0 -20      0      0      0 I   0.0   0.0   0:00.00 kworker/1:0H-events_highpri
   28 root        20   0      0      0      0 S   0.0   0.0   0:00.00 kdevtmpfs
   29 root         0 -20      0      0      0 I   0.0   0.0   0:00.00 inet_frag_wq
   30 root        20   0      0      0      0 S   0.0   0.0   0:00.00 kauditd
   31 root        20   0      0      0      0 S   0.0   0.0   0:00.00 khungtaskd
   32 root        20   0      0      0      0 S   0.0   0.0   0:00.00 oom_reaper
   33 root        20   0      0      0      0 I   0.0   0.0   0:00.05 kworker/u4:2-events_unbound
   34 root         0 -20      0      0      0 I   0.0   0.0   0:00.00 writeback
   35 root        20   0      0      0      0 S   0.0   0.0   0:00.06 kcompactd0
   36 root        25   5      0      0      0 S   0.0   0.0   0:00.00 ksmd
   37 root        39  19      0      0      0 S   0.0   0.0   0:00.19 khugepaged
```

17. Usar el comando traceroute

```

(kali㉿kali)-[/home/prueba]
$ traceroute
Usage:
  traceroute [ -4dFITnreAUDV ] [ -f first_ttl ] [ -g gate, ... ] [ -i device ] [ -m max_ttl ] [ -N sq
queries ] [ -p port ] [ -t tos ] [ -l flow_label ] [ -w MAX,HERE,NEAR ] [ -q nqueries ] [ -s src_addr
] [ -z sendwait ] [ --fwmark=num ] host [ packetlen ]
Options:
  -4                               Use IPv4
  -6                               Use IPv6
  -d --debug                       Enable socket level debugging
  -F --dont-fragment              Do not fragment packets
  -f first_ttl --first=first_ttl   Start from the first_ttl hop (instead from 1)
  -g gate, ... --gateway=gate, ... Route packets through the specified gateway
                                  (maximum 8 for IPv4 and 127 for IPv6)
  -I --icmp                       Use ICMP ECHO for tracerouting
  -T --tcp                        Use TCP SYN for tracerouting (default port is 80)
  -i device --interface=device    Specify a network interface to operate with
  -m max_ttl --max-hops=max_ttl   Set the max number of hops (max TTL to be
                                  reached). Default is 30
  -N sqqueries --sim-queries=squeries Set the number of probes to be tried
                                  simultaneously (default is 16)
  -n                               Do not resolve IP addresses to their domain names
  -p port --port=port             Set the destination port to use. It is either
                                  initial udp port value for "default" method
                                  (incremented by each probe, default is 33434), or
                                  initial seq for "icmp" (incremented as well,
                                  default from 1), or some constant destination
                                  port for other methods (with default of 80 for
                                  "tcp", 53 for "udp", etc.)
  -t tos --tos=tos               Set the TOS (IPv4 type of service) or TC (IPv6
                                  traffic class) value for outgoing packets
  -l flow_label --flowlabel=flow_label Use specified flow_label for IPv6 packets
  -w MAX,HERE,NEAR --wait=MAX,HERE,NEAR Wait for a probe no more than HERE (default 3)
                                  times longer than a response from the same hop,
                                  or no more than NEAR (default 10) times than some
                                  next hop, or MAX (default 5.0) seconds (float
                                  point values allowed too)
  -q nqueries --queries=nqueries Set the number of probes per each hop. Default is
                                  3
  -r                               Bypass the normal routing and send directly to a
                                  host on an attached network

```

18. Usar el comando nslookup

```

(kali㉿kali)-[/home/prueba]
$ nslookup
>
>
> Tarea #988
;; communications error to 8.8.8.8#53: timed out
Server:      8.8.8.8
Address:     8.8.8.8#53

** server can't find Tarea: NXDOMAIN
>

```