lsof command for monitoring

In Linux operating system lsof is powerfull tool for find out various kinds of status and list of open files from all over the system, there are various options provided in lsof which helps a lot to a Linux admin in his/her day to day life. In this post I am just trying to capture various lsof examples that I am using most of times in my present setup

**1. Open TCP and UDP ports with running protocols**

Want to see open Ports, both TCP and UDP ports. In this command output Port numbers will not display

**[root@server ~]# lsof -i**

|  |
| --- |
| COMMAND PID  USER   FD   TYPE DEVICE SIZE NODE NAME  portmap   6805   rpc 3u  IPv4  12002    UDP \*:sunrpc  portmap   6805   rpc 4u  IPv4  12010    TCP \*:sunrpc (LISTEN)  rpc.statd 6844  root 3u  IPv4  12088    UDP \*:purenoise  rpc.statd 6844  root 6u  IPv4  12072    UDP \*:mac-srvr-admin  rpc.statd 6844  root 7u  IPv4  12132    TCP \*:mdqs (LISTEN)  hpiod 7086  root 0u  IPv4  12657    TCP server:2208 (LISTEN)  python 7091  root 4u  IPv4  12686    TCP server:2207 (LISTEN)  sshd   7121  root 3u  IPv6  12743    TCP \*:ssh (LISTEN)  cupsd 7161  root 3u  IPv4  12812    TCP server:ipp (LISTEN)  cupsd 7161  root 5u  IPv4  12815    UDP \*:ipp  sendmail  7204  root 4u  IPv4  12947    TCP server:smtp (LISTEN)  avahi-dae 7347 avahi   13u  IPv4  13269    UDP \*:mdns  avahi-dae 7347 avahi   14u  IPv6  13270    UDP \*:mdns  avahi-dae 7347 avahi   15u  IPv4  13271    UDP \*:filenet-tms  avahi-dae 7347 avahi   16u  IPv6  13272    UDP \*:filenet-rpc  sshd   7528  root 3u  IPv6  15320    TCP 192.168.1.110:ssh->192.168.1.3:49232 (ESTABLISHED) |

**2. Open ports with Port numbers**

This is same command, but it just display Port numbers as well instead of protocol

**[root@server ~]# lsof -i -P**

|  |
| --- |
| COMMAND PID  USER   FD   TYPE DEVICE SIZE NODE NAME  portmap 6805   rpc 3u  IPv4  12002    UDP \*:111  portmap 6805   rpc 4u  IPv4  12010    TCP \*:111 (LISTEN)  rpc.statd  6844  root 3u  IPv4  12088    UDP \*:663  rpc.statd  6844  root 6u  IPv4  12072    UDP \*:660  rpc.statd  6844  root 7u  IPv4  12132    TCP \*:666 (LISTEN)  hpiod   7086  root 0u  IPv4  12657    TCP server:2208 (LISTEN)  python 7091  root 4u  IPv4  12686    TCP server:2207 (LISTEN)  sshd    7121  root 3u  IPv6  12743    TCP \*:22 (LISTEN)  cupsd   7161  root 3u  IPv4  12812    TCP server:631 (LISTEN)  cupsd      7161  root 5u  IPv4  12815    UDP \*:631  sendmail   7204  root 4u  IPv4  12947    TCP server:25 (LISTEN)  avahi-dae  7347 avahi   13u  IPv4  13269    UDP \*:5353  avahi-dae  7347 avahi   14u  IPv6  13270    UDP \*:5353  avahi-dae  7347 avahi   15u  IPv4  13271    UDP \*:32768  avahi-dae  7347 avahi   16u  IPv6  13272    UDP \*:32769  sshd    7528  root 3u  IPv6  15320    TCP 192.168.1.110:22->192.168.1.3:49232 (ESTABLISHED) |

**3. Open Ports numbers with their process Id numbers**

Above commands will display Process id of backend process that cause this port up, but in below command will also display parent process IDs of process. Some time we also need to know parent process of process which cause this port up.

**[root@server ~]# lsof -i -P +R**

|  |
| --- |
| COMMAND PID PPID  USER   FD   TYPE DEVICE SIZE NODE NAME  portmap 6805 1   rpc 3u  IPv4  12002    UDP \*:111  portmap 6805 1   rpc 4u  IPv4  12010    TCP \*:111 (LISTEN)  rpc.statd  6844 1  root 3u  IPv4  12088    UDP \*:663  rpc.statd  6844 1  root 6u  IPv4  12072    UDP \*:660  rpc.statd  6844 1  root 7u  IPv4  12132    TCP \*:666 (LISTEN)  hpiod   7086 1  root 0u  IPv4  12657    TCP server:2208 (LISTEN)  python 7091 1  root 4u  IPv4  12686       TCP server:2207 (LISTEN)  sshd    7121 1  root 3u  IPv6  12743    TCP \*:22 (LISTEN)  cupsd   7161 1  root 3u  IPv4  12812    TCP server:631 (LISTEN)  cupsd   7161 1  root 5u  IPv4  12815    UDP \*:631  sendmail   7204    1  root 4u  IPv4  12947    TCP server:25 (LISTEN)  avahi-dae  7347 1 avahi   13u  IPv4  13269    UDP \*:5353  avahi-dae  7347 1 avahi   14u  IPv6  13270    UDP \*:5353  avahi-dae  7347 1 avahi   15u  IPv4  13271    UDP \*:32768  avahi-dae  7347 1 avahi   16u  IPv6  13272    UDP \*:32769  sshd    7528 7121  root 3u  IPv6  15320    TCP 192.168.1.110:22->192.168.1.3:49232 (ESTABLISHED) |

**4.  Port working for TCP only**

Above commands are used for TCP and UDP ports, but in case we only want to display TCP or UDP ports. Below command will able to display it.

**[root@server ~]# lsof  -itcp**

|  |
| --- |
| COMMAND PID USER   FD   TYPE DEVICE SIZE NODE NAME  portmap   6805  rpc 4u  IPv4  12010    TCP \*:sunrpc (LISTEN)  rpc.statd 6844 root 7u  IPv4  12132    TCP \*:mdqs (LISTEN)  hpiod 7086 root 0u  IPv4  12657    TCP server:2208 (LISTEN)  python 7091 root 4u  IPv4  12686    TCP server:2207 (LISTEN)  sshd   7121 root 3u  IPv6  12743    TCP \*:ssh (LISTEN)  cupsd 7161 root 3u  IPv4  12812    TCP server:ipp (LISTEN)  sendmail  7204 root 4u  IPv4  12947    TCP server:smtp (LISTEN)  sshd   7528 root 3u  IPv6  15320    TCP 192.168.1.110:ssh->192.168.1.3:49232 (ESTABLISHED)  vsftpd 7648 root 3u  IPv4  18398    TCP \*:ftp (LISTEN)  rpc.rquot 7770 root 4u  IPv4  18813    TCP \*:netrcs (LISTEN)  rpc.mount 7813 root 7u  IPv4  18896    TCP \*:784 (LISTEN)  ypserv 7855 root 6u  IPv4  19065    TCP \*:itm-mcell-s (LISTEN) |

**5. Display specific ports**

Above commands will cover all ports but sometime we just need to know status of only one port like mentioned in below command.

**[root@server ~]# lsof -i :25**

|  |
| --- |
| COMMAND   PID USER   FD   TYPE DEVICE SIZE NODE NAME  sendmail 7204 root 4u  IPv4  12947    TCP server:smtp (LISTEN) |

**6. Display range of ports**

In some requirements, we need to know status of some port range like 1-100 ports. we can use below commands for this

**[root@client ~]# lsof -i :1-100**

|  |
| --- |
| COMMAND PID USER   FD   TYPE DEVICE SIZE NODE NAME  sshd   7125 root 3u  IPv6  12891    TCP \*:ssh (LISTEN)  sendmail  7196 root 4u  IPv4  13081    TCP server:smtp (LISTEN)  sshd   7513 root 3u  IPv6  15376    TCP 192.168.1.101:ssh->192.168.1.3:49298 (ESTABLISHED)  sshd   7607 root 3u  IPv6  15570    TCP 192.168.1.101:ssh->192.168.1.3:49999 (ESTABLISHED)  sshd 19026 root 3u  IPv6  58713       TCP 192.168.1.101:ssh->192.168.1.3:50134 (ESTABLISHED)  sshd 19838 root 3u  IPv6  61673    TCP 192.168.1.101:ssh->192.168.1.3:50784 (ESTABLISHED)  sshd 19840   u1 3u  IPv6  61673    TCP 192.168.1.101:ssh->192.168.1.3:50784 (ESTABLISHED) |

**7. Display open udp ports**

**[root@server ~]# lsof  -iudp**

|  |
| --- |
| COMMAND PID  USER   FD   TYPE DEVICE SIZE NODE NAME  portmap   6805   rpc 3u  IPv4  12002    UDP \*:sunrpc  rpc.statd 6844  root 3u  IPv4  12088    UDP \*:purenoise  rpc.statd 6844  root 6u  IPv4  12072    UDP \*:mac-srvr-admin  cupsd 7161  root 5u  IPv4  12815    UDP \*:ipp  avahi-dae 7347 avahi   13u  IPv4  13269    UDP \*:mdns  avahi-dae 7347 avahi   14u  IPv6  13270    UDP \*:mdns  avahi-dae 7347 avahi   15u  IPv4  13271    UDP \*:filenet-tms  avahi-dae 7347 avahi   16u  IPv6  13272    UDP \*:filenet-rpc  rpc.rquot 7770  root 3u  IPv4  18807    UDP \*:739  rpc.mount 7813  root 6u  IPv4  18893    UDP \*:781  ypserv 7855  root 5u  IPv4  19060    UDP \*:825  rpc.yppas 7887  root 4u  IPv4  19123    UDP \*:856 |

**8. open files in specfic directory, will not search recursive**

**[root@server ~]# lsof +d /var/run/**

|  |
| --- |
| COMMAND PID  USER   FD   TYPE DEVICE  SIZE NODE NAME  audispd   6717  root 5u  unix 0xc1bf4900      11829 /var/run/audispd\_events  rpc.statd 6844  root 8w   REG   253,0 5 3202319 /var/run/rpc.statd.pid  sdpd   6939  root 5u  unix 0xf6a45580      12350 /var/run/sdp  pcscd 7001  root  mem REG   253,0 65537 3202338 /var/run/pcscd.pub  pcscd 7001  root 3u   REG   253,0 65537 3202338 /var/run/pcscd.pub  pcscd 7001  root 5u  unix 0xf63eae40      12465 /var/run/pcscd.comm  automount 7046  root 9u  FIFO   253,0    3202343 /var/run/autofs.fifo-misc  automount 7046  root   15u  FIFO   253,0    3202345 /var/run/autofs.fifo-net  acpid 7070  root 4u  unix 0xf63ea900      12623 /var/run/acpid.socket  acpid 7070  root 5u  unix 0xf3efac80      14735 /var/run/acpid.socket  hpiod 7086  root 3u   REG   253,0 5 3202351 /var/run/hpiod.pid  python 7091  root 3u   REG   253,0 5 3202354 /var/run/hpssd.pid  sendmail  7204  root 5wW  REG   253,0 33 3202368 /var/run/sendmail.pid  sendmail  7212 smmsp 4wW  REG 253,0 49 3202372 /var/run/sm-client.pid |

**9. open files in specfic directory, will search recursive as well**

**[root@server ~]# lsof +D /proc/**

|  |
| --- |
| COMMAND PID   USER   FD   TYPE DEVICE SIZE    NODE NAME  klogd   6753   root 0r   REG 0,3 0 4026531849 /proc/kmsg  rpc.idmap  6890   root 4u   REG 0,3 0 4026532773 /proc/net/rpc/nfs4.nametoid/channel  rpc.idmap  6890   root 9u   REG 0,3 0 4026532769 /proc/net/rpc/nfs4.idtoname/channel  acpid   7070   root 3r   REG 0,3 0 4026532142 /proc/acpi/event  hald    7364 haldaemon   11r   REG 0,3 0  482607121 /proc/7364/mounts  rpc.mount  7813   root 3u   REG 0,3 0 4026532568 /proc/net/rpc/auth.unix.ip/channel  rpc.mount  7813   root 4u   REG 0,3 0 4026532761 /proc/net/rpc/nfsd.export/channel  rpc.mount  7813   root 5u   REG 0,3 0 4026532765 /proc/net/rpc/nfsd.fh/channel  lsof   20404   root 3r   DIR 0,3 0      1 /proc/  lsof   20404   root 6r   DIR 0,3 0 1337196553 /proc/20404/fd |

**10. Display Established connections**

**[root@server ~]# lsof -i @192.168.1.3**

|  |
| --- |
| COMMAND  PID USER   FD   TYPE DEVICE SIZE NODE NAME  sshd 7528 root 3u  IPv6  15320    TCP 192.168.1.110:ssh->192.168.1.3:49232 (ESTABLISHED) |

**[root@client ~]# lsof -i @192.168.1.110**

|  |
| --- |
| COMMAND   PID USER   FD   TYPE DEVICE SIZE NODE NAME  ftp 20157   u1 3u  IPv4  62569    TCP 192.168.1.101:36490->192.168.1.110:ftp (ESTABLISHED)  ftp 20157   u1 4u  IPv4  62569    TCP 192.168.1.101:36490->192.168.1.110:ftp (ESTABLISHED) |

**11.  Display open files per process id(pid)**

**[root@server ~]# lsof -p 7121**

|  |
| --- |
| COMMAND  PID USER   FD   TYPE DEVICE   SIZE NODE NAME  sshd 7121 root  cwd DIR  253,0   4096    2 /  sshd 7121 root  rtd DIR  253,0   4096    2 /  sshd 7121 root  txt REG  253,0 387308 2433014 /usr/sbin/sshd  sshd 7121 root  mem REG  253,0      261433 /lib/libutil-2.5.so (path inode=263739)  sshd 7121 root  mem REG  253,0     2423991 /usr/lib/libz.so.1.2.3 (path inode=2440370)  sshd 7121 root  mem REG  253,0     2425597 /usr/lib/libnssutil3.so (path inode=2430740)  sshd 7121 root  mem REG  253,0  46680  261417 /lib/libnss\_files-2.5.so  sshd 7121 root  mem REG  253,0    261579 /lib/libcom\_err.so.2.1 (path inode=263737)  sshd 7121 root  mem REG  253,0     2425593 /usr/lib/libplds4.so (path inode=2440382)  sshd 7121 root  mem REG  253,0      261407 /lib/libdl-2.5.so (path inode=263715)  sshd 7121 root 0u   CHR 1,3        1527 /dev/null  sshd 7121 root 1u   CHR 1,3        1527 /dev/null  sshd 7121 root 2u   CHR 1,3        1527 /dev/null  sshd 7121 root 3u  IPv6  12743         TCP \*:ssh (LISTEN) |

**12. Disaply oprn files on User basis -- This is NIS user, user's process will not display on NIS Server**

**[root@client ~]# lsof -u u1**

|  |
| --- |
| COMMAND   PID USER   FD   TYPE DEVICE SIZE NODE NAME  sshd 19190   u1  cwd DIR   253,0 4096    2 /  sshd 19190   u1  rtd DIR   253,0 4096    2 /  sshd 19190   u1  txt REG   253,0   387308 2433014 /usr/sbin/sshd  sshd 19190   u1  mem REG   253,0 45288  261596 /lib/libcrypt-2.5.so  sshd 19190   u1  mem REG   253,0 8072  263733 /lib/libkeyutils-1.2.so  sshd 19190   u1  mem REG   253,0 11460 2440345 /usr/lib/libplds4.so  sshd 19190   u1  mem REG   253,0 29856 2438824 /usr/lib/libcrack.so.2.8.0  sshd 19190   u1  mem REG   253,0   125736  263713 /lib/ld-2.5.so  sshd 19190   u1  mem REG   253,0  1242224  263719 /lib/libcrypto.so.0.9.8b  sshd 19190   u1  mem REG   253,0   190712 2440341 /usr/lib/libgssapi\_krb5.so.2.2  sshd 19190   u1  mem REG   253,0   600084 2440340 /usr/lib/libkrb5.so.3.3  sshd 19190   u1  mem REG   253,0   228028 2434949 /usr/lib/libnspr4.so  sshd    19190   u1  mem REG   253,0   125744  263720 /lib/libpthread-2.5.so  sshd 19190   u1 3u  IPv6   59141           TCP 192.168.1.101:ssh->192.168.1.3:50257 (ESTABLISHED) |

**13. Display Process holding for certain file descriptor**

**[root@server ~]# lsof -d 15**

|  |
| --- |
| COMMAND PID   USER   FD   TYPE DEVICE SIZE NODE NAME  automount 7046   root   15u  FIFO   253,0   3202345 /var/run/autofs.fifo-net  avahi-dae 7347 avahi   15u  IPv4   13271      UDP \*:filenet-tms  hald   7364 haldaemon   15u  unix 0xf3efaac0     15006 socket |

**14. Display all Ipv4 connections**

**[root@server ~]# lsof -i4**

|  |
| --- |
| COMMAND PID  USER   FD   TYPE DEVICE SIZE NODE NAME  portmap   6805   rpc 3u  IPv4  12002    UDP \*:sunrpc  portmap   6805   rpc 4u  IPv4  12010    TCP \*:sunrpc (LISTEN)  rpc.statd 6844  root 3u  IPv4  12088    UDP \*:purenoise  rpc.statd 6844  root 6u  IPv4  12072    UDP \*:mac-srvr-admin  rpc.statd 6844  root 7u  IPv4  12132    TCP \*:mdqs (LISTEN)  hpiod 7086  root 0u  IPv4  12657    TCP server:2208 (LISTEN)  python 7091  root 4u  IPv4  12686    TCP server:2207 (LISTEN)  cupsd 7161  root 3u  IPv4  12812    TCP server:ipp (LISTEN)  cupsd 7161  root 5u  IPv4  12815    UDP \*:ipp  sendmail  7204  root 4u  IPv4  12947    TCP server:smtp (LISTEN)  avahi-dae 7347 avahi   13u  IPv4  13269    UDP \*:mdns  avahi-dae 7347 avahi   15u  IPv4  13271    UDP \*:filenet-tms  vsftpd 7648  root 3u  IPv4  18398   TCP \*:ftp (LISTEN)  rpc.rquot 7770  root 3u  IPv4  18807    UDP \*:739  rpc.rquot 7770  root 4u  IPv4  18813    TCP \*:netrcs (LISTEN)  rpc.mount 7813  root 6u  IPv4  18893    UDP \*:781  rpc.mount 7813  root 7u  IPv4  18896    TCP \*:784 (LISTEN)  ypserv 7855  root 5u  IPv4  19060    UDP \*:825  ypserv 7855  root 6u  IPv4  19065    TCP \*:itm-mcell-s (LISTEN)  rpc.yppas 7887  root 4u  IPv4  19123    UDP \*:856 |

**15. Diaply process running on a open file**

**[root@client ~]# lsof /var/log/messages**

|  |
| --- |
| COMMAND  PID USER   FD   TYPE DEVICE   SIZE NODE NAME  syslogd 6742 root 1w   REG  253,0 106636 3201966 /var/log/messages |

**16. Display list of process that start of a command name**

**[root@server ~]# lsof -c ypserv**

|  |
| --- |
| COMMAND  PID USER   FD   TYPE DEVICE  SIZE NODE NAME  ypserv  7855 root  cwd DIR   253,0  4096 3201900 /var/yp  ypserv  7855 root  rtd DIR   253,0  4096    2 /  ypserv  7855 root  txt REG   253,0 44232 2440342 /usr/sbin/ypserv  ypserv  7855 root  mem REG   253,0    2424344 /usr/lib/libgdbm.so.2.0.0 (path inode=2434857)  ypserv  7855 root 3uW  REG   253,0 5 3202541 /var/run/ypserv.pid  ypserv  7855 root 5u  IPv4   19060        UDP \*:825  ypserv  7855 root 6u  IPv4   19065        TCP \*:itm-mcell-s (LISTEN)  ypserv  7855 root 7r   REG   253,0 12503 4018684 /var/yp/linuxphobia/hosts.byaddr  ypserv  7855 root 8r   REG   253,0 12472 4018679 /var/yp/linuxphobia/passwd.byname  ypserv  7855 root 9r   REG   253,0 12472 4018680 /var/yp/linuxphobia/passwd.byuid  ypserv  7855 root   10r   REG   253,0 12414 4018681 /var/yp/linuxphobia/group.byname  ypserv  7855 root   11r   REG   253,0 12414 4018682 /var/yp/linuxphobia/group.bygid  ypserv  7855 root   12r   REG   253,0 12586 4018683 /var/yp/linuxphobia/hosts.byname |

**17. Display process working on mountpints**

**[root@client ~]# lsof /home**

|  |
| --- |
| COMMAND PID USER   FD   TYPE DEVICE SIZE  NODE NAME  automount 7772 root   21r   DIR   0,23 0 16112 /home |

**18. Display process running from users except those mentioned user**

**[root@client ~]# lsof -u ^root -u ^u1 -u ^rpc -u ^haldaemon -u ^avahi -u ^xfs -u ^smmsp**

|  |
| --- |
| COMMAND PID USER   FD   TYPE DEVICE   SIZE NODE NAME  dbus-daem 6911 dbus  cwd DIR   253,0   4096    2 /  dbus-daem 6911 dbus  rtd DIR   253,0   4096    2 /  dbus-daem 6911 dbus  txt REG   253,0 351900 4639486 /bin/dbus-daemon  dbus-daem 6911 dbus  mem REG   253,0      261425 /lib/libpthread-2.5.so (path inode=263720)  dbus-daem 6911 dbus  mem REG   253,0      261407 /lib/libdl-2.5.so (path inode=263715)  dbus-daem 6911 dbus  mem REG   253,0  46680  261417 /lib/libnss\_files-2.5.so  dbus-daem 6911 dbus  mem REG   253,0      261457 /lib/libcap.so.1.10 (path inode=263730)  dbus-daem 6911 dbus  mem REG   253,0      261451 /lib/libaudit.so.0.0.0 (path inode=263716)  dbus-daem 6911 dbus  mem REG   253,0      261567 /lib/libselinux.so.1 (path inode=263736)  dbus-daem 6911 dbus  mem REG   253,0      261394 /lib/ld-2.5.so (path inode=263713)  dbus-daem 6911 dbus  mem REG   253,0      261455 /lib/libexpat.so.0.5.0 (path inode=263725)  dbus-daem 6911 dbus  mem REG   253,0      261472 /lib/libsepol.so.1 (path inode=263735)  dbus-daem 6911 dbus  mem REG   253,0      261401 /lib/libc-2.5.so (path inode=263714)  dbus-daem 6911 dbus 0u   CHR     1,3        1527 /dev/null  dbus-daem 6911 dbus 1u   CHR     1,3        1527 /dev/null  dbus-daem 6911 dbus 2u   CHR     1,3        1527 /dev/null  dbus-daem 6911 dbus 3u  unix 0xf6b9ce40       12419 /var/run/dbus/system\_bus\_socket  dbus-daem 6911 dbus 4u   CHR     1,3        1527 /dev/null  dbus-daem 6911 dbus 5r   DIR   253,0   4096 4051635 /etc/dbus-1/system.d  dbus-daem 6911 dbus 6u  unix 0xf6b9cc80       12421 socket  dbus-daem 6911 dbus 7u  unix 0xf6b9cac0       12422 socket |

**18. Display only print Process id (Pid) running from User**

**[root@client ~]# lsof -t -u ^root -u ^u1 -u ^rpc -u ^haldaemon -u ^avahi -u ^xfs -u ^smmsp**

|  |
| --- |
| 6911 |

**19.Display only for specific user for specific command**

Some time we want to display specific command for only specific user like in this With this options -a in last -c and -u will work together to print only bash command process for user u1

**[root@srv3 ~]# lsof  -c bash -u u1 -a**

|  |
| --- |
| COMMAND  PID USER   FD   TYPE DEVICE SIZE/OFF    NODE NAME  bash    6050   u1  cwd    DIR  253,0     4096 1633607 /home/u1  bash    6050   u1  rtd    DIR  253,0     4096       2 /  bash    6050   u1  txt    REG  253,0   735804  326755 /bin/bash  bash    6050   u1  mem    REG  253,0   130860 4410722 /lib/ld-2.5.so  bash    6050   u1  mem    REG  253,0  1706232 4410738 /lib/libc-2.5.so  bash    6050   u1  mem    REG  253,0    20668 4410769 /lib/libdl-2.5.so  bash    6050   u1  mem    REG  253,0    13276 4410806 /lib/libtermcap.so.2.0.8  bash    6050   u1  mem    REG  253,0    50848 4410760 /lib/libnss\_files-2.5.so  bash    6050   u1  mem    REG  253,0 56466992 1061342 /usr/lib/locale/locale-archive  bash    6050   u1  mem    REG  253,0    25462 1143780 /usr/lib/gconv/gconv-modules.cache  bash    6050   u1    0u   CHR  136,1      0t0       3 /dev/pts/1  bash    6050   u1    1u   CHR  136,1      0t0       3 /dev/pts/1  bash    6050   u1    2u   CHR  136,1      0t0       3 /dev/pts/1  bash    6050   u1  255u   CHR  136,1      0t0       3 /dev/pts/1 |

**20.Real time lsof like top**

Default time is 15 second. This will repeat this till the process ends or terminated with an interrupt or quit signal in every 5 seconds.

**[root@client ~]# lsof -u u1  -c cat -a +r5**

|  |
| --- |
| COMMAND   PID USER   FD   TYPE DEVICE SIZE NODE NAME  cat 19868   u1  cwd DIR   0,24 4096 2842495 /home/u1 (192.168.1.110:/home/u1)  cat 19868   u1  rtd DIR  253,0 4096    2 /  cat 19868   u1  txt REG  253,0 23132 4639532 /bin/cat  cat 19868   u1  mem REG  253,0   125736  263713 /lib/ld-2.5.so  cat 19868   u1  mem REG  253,0  1602128  263714 /lib/libc-2.5.so  cat 19868   u1  mem REG  253,0 56417840 2423648 /usr/lib/locale/locale-archive  cat 19868   u1 0u   CHR  136,0             2 /dev/pts/0  cat 19868   u1    1w   REG   0,24     0 2842504 /home/u1/f1 (192.168.1.110:/home/u1)  cat 19868   u1 2u   CHR  136,0             2 /dev/pts/0  ======= |

**21. NFS files used by user u1**

**[root@client ~]# lsof -N -u u1 -a**

|  |
| --- |
| COMMAND   PID USER   FD   TYPE DEVICE SIZE    NODE NAME  bash 19841   u1  cwd DIR   0,24 4096 2842495 /home/u1 (192.168.1.110:/home/u1) |