



redhat.

Cómo monitorear recursos sin morir en el intento

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Marzo 2018

About me

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[@dark_axl](https://twitter.com/dark_axl)



[/rootzilopochtli](https://www.facebook.com/rootzilopochtli)

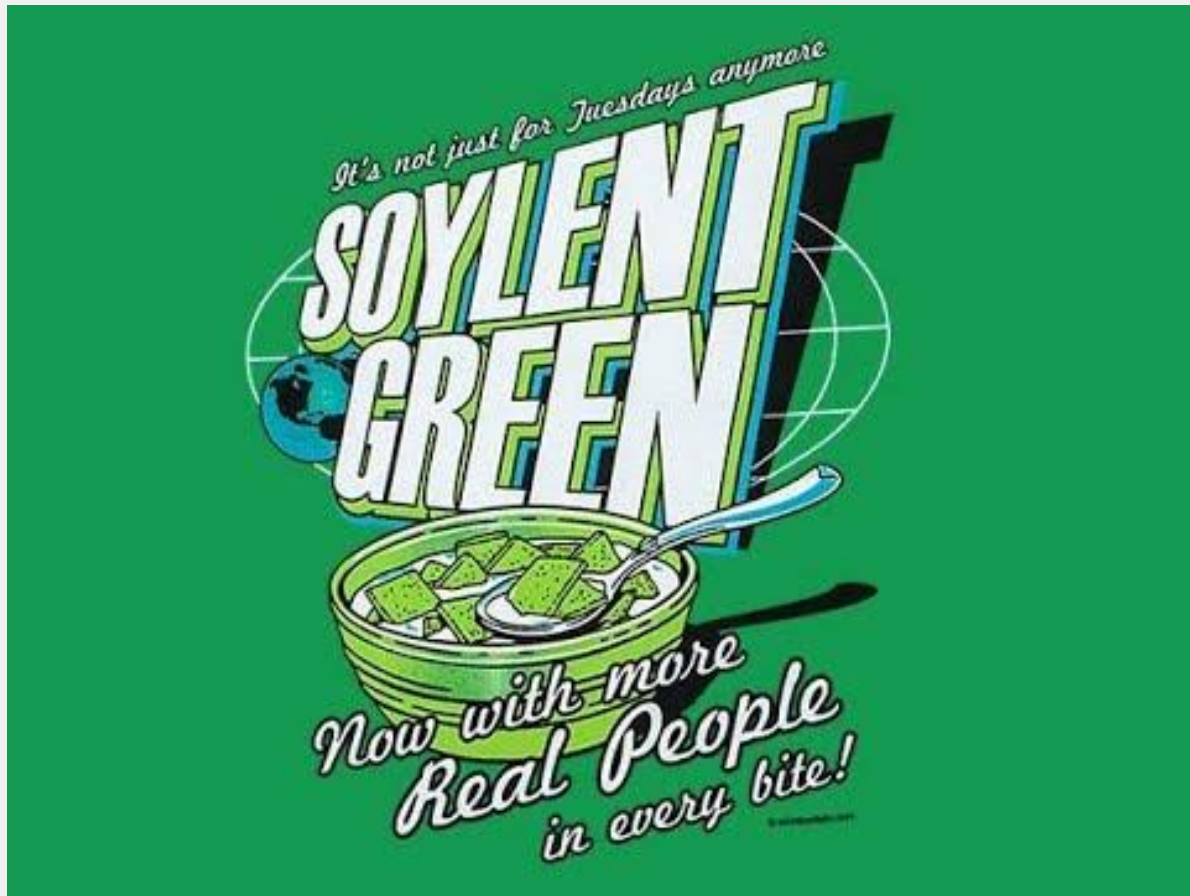


www.rootzilopochtli.com



Geek by nature, Linux by choice, Fedora of course!

Empecemos con una anécdota...



Fuente <https://www.youtube.com/watch?v=wUyFroRRBOA:>

SYSADMIN TOOLBOX

Top

Table of Processes

```
root@tetlal:~  
root@tetlal:~ 116x33  
top - 22:10:00 up 7 days, 3:51, 1 user, load average: 0.00, 0.01, 0.05  
Tasks: 113 total, 1 running, 112 sleeping, 0 stopped, 0 zombie  
%Cpu(s): 0.3 us, 0.3 sy, 0.0 ni, 99.3 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st  
KiB Mem : 3623808 total, 559624 free, 700404 used, 2363780 buff/cache  
KiB Swap: 0 total, 0 free, 0 used, 2525688 avail Mem  


| PID   | USER  | PR | NI  | VIRT    | RES    | SHR   | S | %CPU | %MEM | TIME+   | COMMAND       |
|-------|-------|----|-----|---------|--------|-------|---|------|------|---------|---------------|
| 24575 | jboss | 20 | 0   | 1692360 | 463392 | 20504 | S | 0.7  | 12.8 | 1:38.30 | java          |
| 27610 | xymon | 20 | 0   | 41284   | 2776   | 1892  | S | 0.3  | 0.1  | 4:49.12 | Xymond        |
| 1     | root  | 20 | 0   | 127992  | 6480   | 3936  | S | 0.0  | 0.2  | 0:36.87 | systemd       |
| 2     | root  | 20 | 0   | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.20 | kthreadd      |
| 3     | root  | 20 | 0   | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:01.78 | ksoftirqd/0   |
| 5     | root  | 0  | -20 | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | kworker/0:0H  |
| 7     | root  | rt | 0   | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | migration/0   |
| 8     | root  | 20 | 0   | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | rcu_bh        |
| 9     | root  | 20 | 0   | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:09.39 | rcu_sched     |
| 10    | root  | rt | 0   | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:03.10 | watchdog/0    |
| 12    | root  | 20 | 0   | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | kdevtmpfs     |
| 13    | root  | 0  | -20 | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.01 | netns         |
| 14    | root  | 20 | 0   | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.18 | khungtaskd    |
| 15    | root  | 0  | -20 | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | writeback     |
| 16    | root  | 0  | -20 | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | kintegrityd   |
| 17    | root  | 0  | -20 | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | bioreset      |
| 18    | root  | 0  | -20 | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | kblockd       |
| 19    | root  | 0  | -20 | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | md            |
| 25    | root  | 20 | 0   | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.99 | kswapd0       |
| 26    | root  | 25 | 5   | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | ksmd          |
| 27    | root  | 39 | 19  | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:04.69 | khugepaged    |
| 28    | root  | 0  | -20 | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | crypto        |
| 36    | root  | 0  | -20 | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | kthrotld      |
| 38    | root  | 0  | -20 | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | kmpath_rdacd  |
| 39    | root  | 0  | -20 | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | kpsmouse      |
| 41    | root  | 0  | -20 | 0       | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | ipv6_addrconf |


```

- La versión tradicional de Unix fue escrita por William LeFebvre y copyrighted en 1984
- La versión de Linux fue escrita originalmente por Roger Binns en 1991

Fuente:

<https://www.rogerbinns.com/blog/linux-top-origins.html>

[https://en.wikipedia.org/wiki/Top_\(software\)](https://en.wikipedia.org/wiki/Top_(software))

SAR

System Activity Record

```
[root@tetlal ~]# sar -u 1 1
Linux 3.10.0-693.17.1.el7.x86_64 (tetlal)      03/12/2018      _x86_64_      (1 CPU)

10:43:00 PM    CPU    %user    %nice    %system    %iowait    %steal    %idle
10:43:01 PM    all     0.00     0.00     0.00     0.00     0.00    100.00
Average:        all     0.00     0.00     0.00     0.00     0.00    100.00
[root@tetlal ~]# █
```

- Creado por Sun Microsystems 1993
- En Linux está incluido en el paquete sysstat. Las utilidades sysstat son una colección de herramientas de monitoreo de rendimiento para Linux. Estos incluyen las herramientas sar, sadf, mpstat, iostat, tapestat, pidstat, cifsostat y sa.

Fuente:

https://docs.oracle.com/cd/E26505_01/html/816-5165/sar-1.html

[https://en.wikipedia.org/wiki/Sar_\(Unix\)](https://en.wikipedia.org/wiki/Sar_(Unix))

<http://sebastien.godard.pagesperso-orange.fr/index.html>

<https://github.com/sysstat/sysstat>

NMON

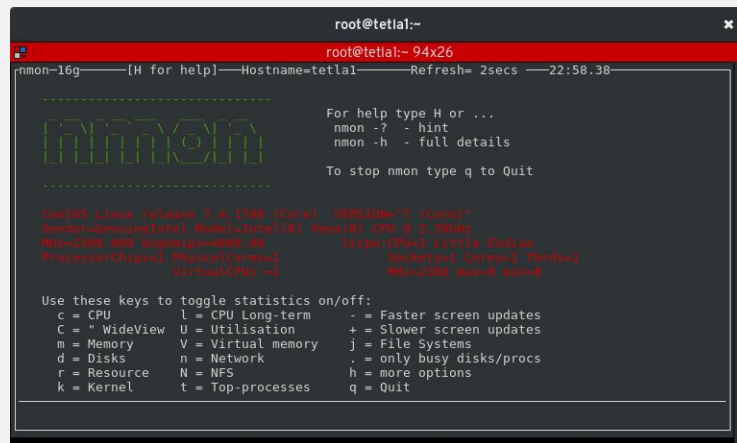
nmon - systems administrator, tuner, benchmark tool

- Creado por IBM para AIX en 1986
- nmon for Linux fue un proyecto interno en IBM durante muchos años y fue lanzado a open source bajo GPL el 27 de julio de 2009

Fuente:

https://www.ibm.com/support/knowledgecenter/en/ssw_aix_61/com.ibm.aix.cmds4/nmon.htm

<http://nmon.sourceforge.net/pmwiki.php>



```
root@tetlal:~  
root@tetlal:~ 94x26  
nmon-16g [H for help] Hostname=tetlal Refresh= 2secs 22:58.38  
-----  
                                For help type H or ...  
                                nmon -? - hint  
                                nmon -h - full details  
                                To stop nmon type q to Quit  
-----  
Linux release 7.4-1708 (Core) 3865106w71 (Core)  
Vendor=DebianIntel Model=Intel(R) Xeon(R) CPU @ 2.30GHz  
HW-2388-890 bogomips=4000.00 1loop=CPU0 Little Endian  
ProcessorType=1 PhysicalCores=1 SockAmt=1 Cores=1 Thrd=1  
VirtualCpus =1 HW-2388 ea=0 min=0  
-----  
Use these keys to toggle statistics on/off:  
c = CPU          l = CPU Long-term      - = Faster screen updates  
C = " WideView  U = Utilisation  + = Slower screen updates  
m = Memory      V = Virtual memory    j = File Systems  
d = Disks       n = Network          . = only busy disks/procs  
r = Resource    N = NFS              h = more options  
k = Kernel      t = Top-processes    q = Quit
```


HTOP

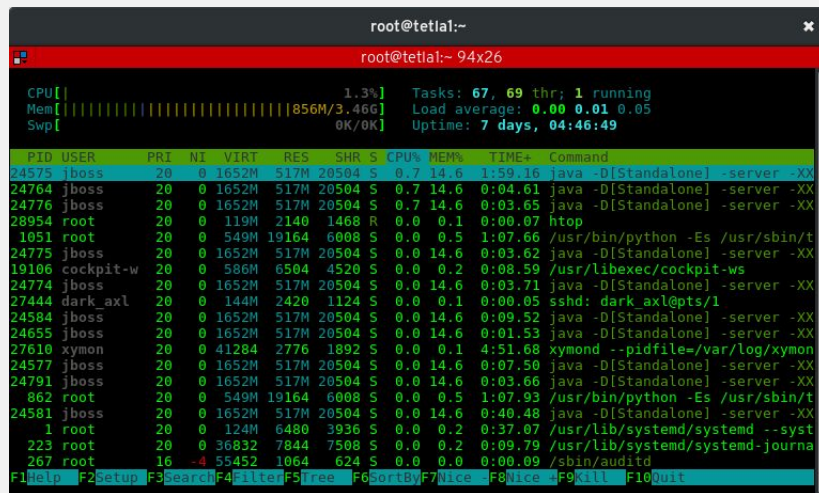
htop is an interactive text-mode process viewer for Unix systems. It aims to be a better 'top'

- Desarrollado por Hisham Muhammad en 2004
- GitHub:

<https://github.com/hishamhm/htop>

Fuente:

<https://en.wikipedia.org/wiki/Htop>



```
root@tetlal:~  
root@tetlal:~ 94x26  
CPU[| 1.3%] Tasks: 67, 69 thr; 1 running  
Mem[| 856M/3.46G] Load average: 0.00 0.01 0.05  
Swp[| 0K/0K] Uptime: 7 days, 04:46:49  
PID USER PRI NI VIRT RES SHR S CPU% MEM% TIME+ Command  
24575 jboss 20 0 1652M 517M 20504 S 0.7 14.6 1:59.16 java -D[Standalone] -server -XX  
24764 jboss 20 0 1652M 517M 20504 S 0.7 14.6 0:04.61 java -D[Standalone] -server -XX  
24776 jboss 20 0 1652M 517M 20504 S 0.7 14.6 0:03.65 java -D[Standalone] -server -XX  
28954 root 20 0 119M 2140 1468 R 0.0 0.1 0:00.07 htop  
1051 root 20 0 549M 19164 6008 S 0.0 0.5 1:07.66 /usr/bin/python -Es /usr/sbin/t  
24775 jboss 20 0 1652M 517M 20504 S 0.0 14.6 0:03.62 java -D[Standalone] -server -XX  
19106 cockpit-w 20 0 586M 6504 4520 S 0.0 0.2 0:08.59 /usr/libexec/cockpit-ws  
24774 jboss 20 0 1652M 517M 20504 S 0.0 14.6 0:03.71 java -D[Standalone] -server -XX  
27444 dark_axl 20 0 144M 2420 1124 S 0.0 0.1 0:00.05 sshd: dark_axl@pts/1  
24584 jboss 20 0 1652M 517M 20504 S 0.0 14.6 0:09.52 java -D[Standalone] -server -XX  
24655 jboss 20 0 1652M 517M 20504 S 0.0 14.6 0:01.53 java -D[Standalone] -server -XX  
27610 xymon 20 0 41284 2776 1892 S 0.0 0.1 4:51.68 xymond --pidfile=/var/log/xymon  
24577 jboss 20 0 1652M 517M 20504 S 0.0 14.6 0:07.50 java -D[Standalone] -server -XX  
24791 jboss 20 0 1652M 517M 20504 S 0.0 14.6 0:03.66 java -D[Standalone] -server -XX  
862 root 20 0 549M 19164 6008 S 0.0 0.5 1:07.93 /usr/bin/python -Es /usr/sbin/t  
24581 jboss 20 0 1652M 517M 20504 S 0.0 14.6 0:40.48 java -D[Standalone] -server -XX  
1 root 20 0 124M 6480 3936 S 0.0 0.2 0:37.07 /usr/lib/systemd/systemd --syst  
223 root 20 0 36832 7844 7508 S 0.0 0.2 0:09.79 /usr/lib/systemd/systemd --journa  
267 root 16 -4 55452 1064 624 S 0.0 0.0 0:00.09 /sbin/auditd  
F1Help F2Setup F3Search F4Filter F5Tree F6SortBy F7Nice F8Nice F9Kill F10Quit
```

PS_MEM

A utility to accurately report the in core memory usage for a program

- Escrito en 2005 por Pádraig Brady
- Originalmente script en python
- Actualmente `pip install` está soportado

Fuente:

https://github.com/pixelb/ps_mem

```
root@tetlal:~# ps_mem
root@tetlal:~# 73x5l
200.0 KiB + 17.0 KiB = 217.0 KiB  xymonLaunch
136.0 KiB + 15.5 KiB = 251.5 KiB  acpid
256.0 KiB + 84.0 KiB = 340.0 KiB  apt-get (2)
212.0 KiB + 141.5 KiB = 353.5 KiB  run-parts
264.0 KiB + 115.5 KiB = 379.5 KiB  sh
240.0 KiB + 146.5 KiB = 386.5 KiB  standalone.sh
400.0 KiB + 29.5 KiB = 429.5 KiB  awk
400.0 KiB + 71.0 KiB = 471.0 KiB  vmstat
472.0 KiB + 34.0 KiB = 506.0 KiB  systemd-timedated
536.0 KiB + 64.5 KiB = 600.5 KiB  auditd
624.0 KiB + 70.5 KiB = 694.5 KiB  xymond_hostdata
644.0 KiB + 54.0 KiB = 698.0 KiB  ssh-agent
648.0 KiB + 72.5 KiB = 720.5 KiB  xymond_history
664.0 KiB + 97.0 KiB = 761.0 KiB  chronyd
656.0 KiB + 219.0 KiB = 875.0 KiB  su
816.0 KiB + 259.0 KiB = 1.0 MiB  cockpit-session
1.0 MiB + 73.5 KiB = 1.1 MiB  xymond_alert
1.0 MiB + 168.5 KiB = 1.2 MiB  xymond*
1.1 MiB + 109.5 KiB = 1.2 MiB  master
1.2 MiB + 49.5 KiB = 1.3 MiB  systemd-logind [updated]
1.1 MiB + 202.5 KiB = 1.3 MiB  sudo
880.0 KiB + 515.0 KiB = 1.4 MiB  bash (2)
652.0 KiB + 789.0 KiB = 1.4 MiB  crond (2)
1.4 MiB + 81.5 KiB = 1.5 MiB  xymond_client
1.2 MiB + 459.5 KiB = 1.6 MiB  pickup
1.3 MiB + 379.0 KiB = 1.7 MiB  dbus-daemon (2)
1.3 MiB + 461.5 KiB = 1.7 MiB  qmgr
1.8 MiB + 812.5 KiB = 2.6 MiB  systemd-udevd
3.2 MiB + 549.0 KiB = 3.7 MiB  xymond_channel (6)
3.5 MiB + 398.0 KiB = 3.9 MiB  cockpit-ws
1.8 MiB + 2.5 MiB = 4.3 MiB  sshd (3)
1.8 MiB + 2.6 MiB = 4.4 MiB  rsyslogd
1.9 MiB + 2.5 MiB = 4.4 MiB  systemd-journald [updated]
3.7 MiB + 849.0 KiB = 4.5 MiB  systemd
3.6 MiB + 1.3 MiB = 4.9 MiB  cockpit-bridge (2)
4.4 MiB + 682.5 KiB = 5.1 MiB  NetworkManager
2.0 MiB + 3.3 MiB = 5.4 MiB  httpd (7)
3.9 MiB + 1.6 MiB = 5.4 MiB  xymond_rrd (2)
8.7 MiB + 474.0 KiB = 9.2 MiB  google_ip_forwa
8.9 MiB + 472.0 KiB = 9.3 MiB  google_clock_sk
9.0 MiB + 507.0 KiB = 9.5 MiB  google_accounts
9.5 MiB + 672.0 KiB = 10.1 MiB  polkitd
13.1 MiB + 266.0 KiB = 13.4 MiB  dnsclient
12.9 MiB + 1.1 MiB = 14.0 MiB  tuned
15.9 MiB + 890.0 KiB = 16.8 MiB  yum-cron
26.4 MiB + 1.1 MiB = 27.5 MiB  firewallld
552.1 MiB + 627.0 KiB = 552.7 MiB  java
-----
736.0 MiB
[root@tetlal ~]#
```

KSAR

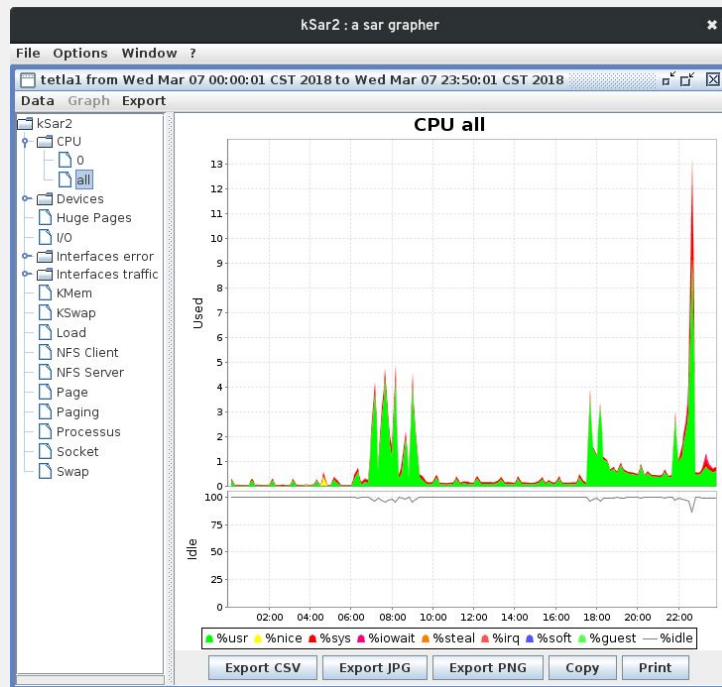
Sar graphing tool that can graph for now linux, mac and solaris sar output.

- Creado en 2006
- Ksar2 fork en github en 2016

Fuente:

<https://sourceforge.net/projects/ksar/>

<https://github.com/ppalucha/ksar2>



SOSREPORT

Collect and package diagnostic and support data

- Herramienta de recolección de datos
- Creada por Red Hat en 2007

What is a sosreport and how to create one in Red Hat Enterprise Linux 4.6 and later?

<https://access.redhat.com/solutions/3592>

How can I install xsos command in Red Hat Enterprise Linux?

<https://access.redhat.com/solutions/511753>

```
root@tetla1:~
root@tetla1:~ 98x42
[root@tetla1 ~]# sosreport
sosreport (version 3.4)
This command will collect diagnostic and configuration information from
this CentOS Linux system and installed applications.
An archive containing the collected information will be generated in
/var/tmp/sos.zTjZsR and may be provided to a CentOS support
representative.
Any information provided to CentOS will be treated in accordance with
the published support policies at:
https://wiki.centos.org/
The generated archive may contain data considered sensitive and its
content should be reviewed by the originating organization before being
passed to any third party.
No changes will be made to system configuration.
Press ENTER to continue, or CTRL-C to quit.
Please enter your first initial and last name [tetla1]:
Please enter the case id that you are generating this report for []:
Setting up archive ...
Setting up plugins ...
Running plugins. Please wait ...
Running 75/75: yum...
Creating compressed archive...
Your sosreport has been generated and saved in:
/var/tmp/sosreport-tetla1-20180312231007.tar.xz
The checksum is: 91e11778191b162cebfd7c045e5b088a
Please send this file to your support representative.
[root@tetla1 ~]#
```

COCKPIT

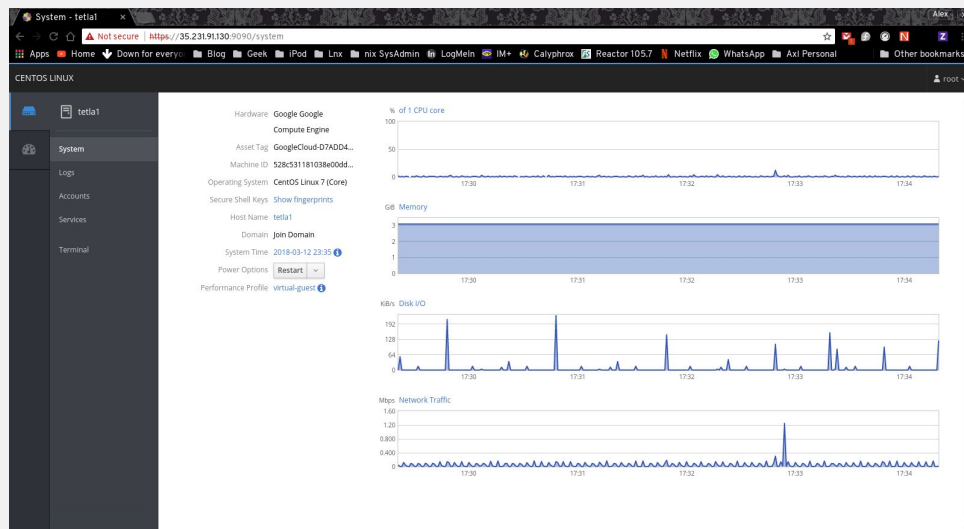
Server manager that makes it easy to administer your GNU/Linux servers via a web browser

- Creado por Red Hat en 2014

Red Hat Enterprise Linux

Getting Started with Cockpit

https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/7/html/getting_started_with_cockpit/





Gracias!



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youtube.com/user/RedHatVideos