

Unidad 1

Comandos Generales

Estos comandos sirven para saber los servicios que tenemos

Man Init

```
alumnat@hugogd: /etc/init.d
SYSTEMD(1)                                systemd

NAME
    systemd, init - systemd system and service manager

SYNOPSIS
    /usr/lib/systemd/systemd [OPTIONS...]

    init [OPTIONS...] {COMMAND}

DESCRIPTION
    systemd is a system and service manager for Linux operating systems. When run as first instance (i.e. as root, or as user 1), it acts as init system that brings up and maintains userspace services. Separates the system from the user space, and manages the system's logged-in users to start their services.

    systemd is usually not invoked directly by the user, but is installed as the /sbin/init binary. It is started during early boot. The user manager instances are started automatically through the user manager.

    For compatibility with SysV, if the binary is called as init and is not the first instance (i.e. as user 1), it will execute telinit and pass all command line arguments unmodified. The init and telinit commands are mostly equivalent when invoked from normal login sessions. See telinit(8) for more information.

    When run as a system instance, systemd interprets the configuration file system.conf. When run as a user instance, systemd interprets the configuration files in user.conf.d directories. See systemd-system.conf(5) for more information.

CONCEPTS
    systemd provides a dependency system between various entities called "units" of 11. These units encapsulate various objects that are relevant for system boot-up and maintenance. The units are configured in unit configuration files, whose syntax and basic set of options is described in the systemd(8) manual page.

Manual page init(1) line 1 (press h for help or q to quit)
```

readlink -v /sbin/init

```
alumnat@hugogd: /etc/init.d$ readlink -v /sbin/init
../lib/systemd/systemd
alumnat@hugogd: /etc/init.d$
```

El comando **runlevel** dice en que nivel estas al ser SystemV es el N5

Con esta comanda se mostraran las correspondencias entre RUNLEVEL y targets

```
alumnat@hugogd:~$ ls -l /lib/systemd/system/runlevel*.target
lrwxrwxrwx 1 root root 15 d'abr. 19 2024 /lib/systemd/system/runlevel0.target -> poweroff.target
lrwxrwxrwx 1 root root 13 d'abr. 19 2024 /lib/systemd/system/runlevel1.target -> rescue.target
lrwxrwxrwx 1 root root 17 d'abr. 19 2024 /lib/systemd/system/runlevel2.target -> multi-user.target
lrwxrwxrwx 1 root root 17 d'abr. 19 2024 /lib/systemd/system/runlevel3.target -> multi-user.target
lrwxrwxrwx 1 root root 17 d'abr. 19 2024 /lib/systemd/system/runlevel4.target -> multi-user.target
lrwxrwxrwx 1 root root 16 d'abr. 19 2024 /lib/systemd/system/runlevel5.target -> graphical.target
lrwxrwxrwx 1 root root 13 d'abr. 19 2024 /lib/systemd/system/runlevel6.target -> reboot.target
alumnat@hugogd:~$
```

Dentro de la carpeta **/etc/init.d** estaran todos los scripts modificables dentro del sistema

```
alumnat@hugogd:/etc/init.d$ ls -l
total 132
-rwxr-xr-x 1 root root 5623 de nov. 30 2022 alsa-utils
-rwxr-xr-x 1 root root 2055 de set. 25 2023 anacron
-rwxr-xr-x 1 root root 3740 de gen. 10 2024 apparmor
-rwxr-xr-x 1 root root 2275 d'abr. 19 2024 apport
-rwxr-xr-x 1 root root 2968 de gen. 3 2024 bluetooth
-rwxr-xr-x 1 root root 1235 de febr. 26 2024 console-setup.sh
-rwxr-xr-x 1 root root 3103 de febr. 27 2024 cron
-rwxr-xr-x 1 root root 2804 de febr. 28 2024 cups
-rwxr-xr-x 1 root root 3152 de des. 5 2023 dbus
-rwxr-xr-x 1 root root 3029 d'abr. 4 2024 gdm3
-rwxr-xr-x 1 root root 985 de febr. 23 2024 grub-common
-rwxr-xr-x 1 root root 3131 de maig 19 2017 kerneloops
-rwxr-xr-x 1 root root 1482 de febr. 26 2024 keyboard-setup.sh
-rwxr-xr-x 1 root root 2043 d'abr. 18 2024 kmod
-rwxr-xr-x 1 root root 9138 de febr. 28 2024 openvpn
-rwxr-xr-x 1 root root 1386 de març 21 2024 plymouth
-rwxr-xr-x 1 root root 760 de març 21 2024 plymouth-log
-rwxr-xr-x 1 root root 959 de març 24 2024 procps
-rwxr-xr-x 1 root root 4417 d'abr. 12 2024 rsync
-rwxr-xr-x 1 root root 2224 d'abr. 15 2018 saned
-rwxr-xr-x 1 root root 2040 d'oct. 5 2023 speech-dispatcher
-rwxr-xr-x 1 root root 2484 de nov. 21 2023 spice-vdagent
-rwxr-xr-x 1 root root 2555 d'abr. 5 2024 sssd
-rwxr-xr-x 1 root root 1581 de gen. 9 2024 sysstat
-rwxr-xr-x 1 root root 2091 de febr. 11 2024 ufw
-rwxr-xr-x 1 root root 1391 de febr. 12 2024 unattended-upgrades
-rwxr-xr-x 1 root root 1306 d'abr. 9 2024 uuidd
-rwxr-xr-x 1 root root 485 d'ag. 11 2018 whoopsie
-rwxr-xr-x 1 root root 2762 d'oct. 19 2021 x11-common
alumnat@hugogd:/etc/init.d$
```

Si entramos por ejemplo al **runlevel nivel 0** veremos las procesos asociadas al los scripts del poweroff.

```
alumnat@hugogd:/etc/rc0.d$ ls -l
total 0
lrwxrwxrwx 1 root root 20 d'abr. 24 2024 K01alsa-utils -> ../init.d/alsa-utils
lrwxrwxrwx 1 root root 19 d'abr. 24 2024 K01bluetooth -> ../init.d/bluetooth
lrwxrwxrwx 1 root root 14 d'abr. 24 2024 K01gdm3 -> ../init.d/gdm3
lrwxrwxrwx 1 root root 20 d'abr. 24 2024 K01kerneloops -> ../init.d/kerneloops
lrwxrwxrwx 1 root root 17 d'abr. 24 2024 K01openvpn -> ../init.d/openvpn
lrwxrwxrwx 1 root root 18 d'abr. 24 2024 K01plymouth -> ../init.d/plymouth
lrwxrwxrwx 1 root root 15 d'abr. 24 2024 K01saned -> ../init.d/saned
lrwxrwxrwx 1 root root 27 d'abr. 24 2024 K01speech-dispatcher -> ../init.d/speech-dispatcher
lrwxrwxrwx 1 root root 23 d'abr. 24 2024 K01spice-vdagent -> ../init.d/spice-vdagent
lrwxrwxrwx 1 root root 14 d'abr. 24 2024 K01sssd -> ../init.d/sssd
lrwxrwxrwx 1 root root 29 d'abr. 24 2024 K01unattended-upgrades -> ../init.d/unattended-upgrades
lrwxrwxrwx 1 root root 15 d'abr. 24 2024 K01uuidd -> ../init.d/uuidd
alumnat@hugogd:/etc/rc0.d$
```

En la carpeta `/lib/systemd/system` tenemos todos los targets de los diferentes niveles de runlevel que hay, en cada uno de estos tendremos la equivalencia del target como `.wants`

```
alumnat@hugogd:/lib/systemd/system$ ls
accounts-daemon.service      smartcard.target
alsa-restore.service         snapd.apparmor.service
alsa-state.service           snapd.autoimport.service
alsa-utils.service           snapd.core-fixup.service
anacron.service              snapd.failure.service
anacron.timer                snapd.mounts-pre.target
apparmor.service             snapd.mounts.target
apport-autoreport.path        snapd.recovery-chooser-trigger.service
apport-autoreport.service     snapd.seeded.service
apport-autoreport.timer       snapd.service
apport-coredump-hook@.service snapd.snap-repair.service
apport-forward@.service       snapd.snap-repair.timer
apport-forward.socket         snapd.socket
apport.service               snapd.system-shutdown.service
apt-daily.service            sockets.target
apt-daily.timer              sockets.target.wants
apt-daily-upgrade.service     soft-reboot.target
apt-daily-upgrade.timer       sound.target
apt-news.service             sound.target.wants
autovt@.service              speech-dispatcherd.service
avahi-daemon.service         spice-vdagentd.service
avahi-daemon.socket          spice-vdagentd.socket
basic.target                 spice-vdagent.service
blockdev@.target             ssl-cert.service
bluetooth.service            sssd-autofs.service
bluetooth.target             sssd-autofs.socket
bolt.service                 sssd-nss.service
boot-complete.target         sssd-nss.socket
brlTTY.service               sssd-pac.service
brlTTY-udev.service          sssd-pac.socket
cloud-config.service         sssd-pam-priv.socket
```

Siempre que tengamos que modificar algo es mejor modificarlo en la carpeta /etc/systemd/system y no tocar los de la carpeta /lib para tenerlos como copia de seguridad

```
alumnat@hugogd:/lib/systemd/system$ cd /etc/systemd/system
alumnat@hugogd:/etc/systemd/system$ ls
bluetooth.target.wants      sleep.target.wants
cloud-final.service.wants   snap-bare-5.mount
cloud-init.target.wants     snap-core22-1380.mount
dbus-fi.w1.wpa_supplicant1.service  snap-core22-2111.mount
dbus-org.bluez.service      snapd.mounts.target.wants
dbus-org.freedesktop.Avahi.service  snap-firefox-4173.mount
dbus-org.freedesktop.ModemManager1.service  'snap-firmware\x2dupdater-127.mount'
dbus-org.freedesktop.nm-dispatcher.service  'snap-firmware\x2dupdater-167.mount'
dbus-org.freedesktop.oom1.service  'snap-gnome\x2d42\x2d2204-176.mount'
dbus-org.freedesktop.resolve1.service  'snap-gnome\x2d42\x2d2204-202.mount'
dbus-org.freedesktop.thermal.service  'snap-gtk\x2dcommon\x2dthemes-1535.mount'
dbus-org.freedesktop.timesync1.service  snap-snapd-21465.mount
display-manager.service     snap-snapd-25202.mount
display-manager.service.wants  'snap-snapd\x2ddesktop\x2dintegration-157.mo
emergency.target.wants      'snap-snapd\x2ddesktop\x2dintegration-315.mo
final.target.wants          'snap-snap\x2dstore-1124.mount'
getty.target.wants          sockets.target.wants
graphical.target.wants      sshd-keygen@.service.d
hibernate.target.wants      sssd.service.wants
hybrid-sleep.target.wants   suspend.target.wants
multi-user.target.wants     suspend-then-hibernate.target.wants
network-online.target.wants sysinit.target.wants
oem-config.service.wants    syslog.service
paths.target.wants          sysstat.service.wants
printer.target.wants        timers.target.wants
rescue.target.wants         'var-snap-firefox-common-host\x2dhunspell.mo
alumnat@hugogd:/etc/systemd/system$
```

```
root@hugogd: /etc/systemd/system

UNIT                                LOAD    ACTIVE SUB    DESCRIPTION
basic.target                        loaded active active Basic System
cryptsetup.target                   loaded active active Local Encrypted Volumes
getty-pre.target                    loaded active active Preparation for Logins
getty.target                         loaded active active Login Prompts
graphical.target                     loaded active active Graphical Interface
integritysetup.target               loaded active active Local Integrity Protected Volumes
local-fs-pre.target                 loaded active active Preparation for Local File Systems
local-fs.target                     loaded active active Local File Systems
multi-user.target                   loaded active active Multi-User System
network-online.target               loaded active active Network is Online
network-pre.target                  loaded active active Preparation for Network
network.target                       loaded active active Network
nss-lookup.target                   loaded active active Host and Network Name Lookups
nss-user-lookup.target              loaded active active User and Group Name Lookups
paths.target                         loaded active active Path Units
remote-fs.target                    loaded active active Remote File Systems
slices.target                       loaded active active Slice Units
snapd.mounts-pre.target             loaded active active Mounting snaps
snapd.mounts.target                 loaded active active Mounted snaps
sockets.target                      loaded active active Socket Units
sound.target                        loaded active active Sound Card
swap.target                         loaded active active Swaps
sysinit.target                      loaded active active System Initialization
time-set.target                     loaded active active System Time Set
timers.target                       loaded active active Timer Units
veritysetup.target                  loaded active active Local Verity Protected Volumes

Legend: LOAD    → Reflects whether the unit definition was properly loaded.
          ACTIVE → The high-level unit activation state, i.e. generalization of SUB.
          SUB    → The low-level unit activation state, values depend on unit type.

lines 1-31
```

Por ejemplo con el comando `systemctl get-default` tendremos el target default

```
root@hugogd: /etc/systemd/system# systemctl get-default
graphical.target
root@hugogd: /etc/systemd/system#
```

Para saber sus dependencias tendremos que usar el comando **systemctl list-dependencies graphical.target**

```
root@hugogd:/etc/systemd/system# systemctl list-dependencies graphical.target
graphical.target
├─accounts-daemon.service
├─gdm.service
├─gnome-remote-desktop.service
├─power-profiles-daemon.service
├─switcheroo-control.service
├─systemd-update-utmp-runlevel.service
├─udisks2.service
├─multi-user.target
├─anacron.service
├─apport.service
├─avahi-daemon.service
├─console-setup.service
├─cron.service
├─cups-browsed.service
├─cups.path
├─cups.service
├─dbus.service
├─dmesg.service
├─e2scrub_reap.service
├─grub-common.service
├─grub-initrd-fallback.service
├─kerneloops.service
├─ModemManager.service
├─networkd-dispatcher.service
├─NetworkManager.service
├─openvpn.service
├─plymouth-quit-wait.service
├─plymouth-quit.service
```

Por ejemplo podemos probarlo con otros **targets** como por ejemplo **poweroff.target**

```
root@hugogd:/etc/systemd/system# systemctl list-dependencies poweroff.target
poweroff.target
├─plymouth-poweroff.service
├─plymouth-switch-root-initramfs.service
├─systemd-poweroff.service
root@hugogd:/etc/systemd/system#
```

Para saber donde se encuentra un servicio podemos usar el comando **ls** con la ruta de la carpeta usando ***.wants** para buscar en todos los archivos **.wants**

```
root@hugogd:/lib/systemd/system# ls /etc/systemd/system/*.wants/cron.service
/etc/systemd/system/multi-user.target.wants/cron.service
root@hugogd:/lib/systemd/system#
```

Para cambiar el target por defecto lo podemos hacer de forma definitiva o temporal para cambiarlo usaremos:

TEMPORAL:

```
17 de set. 19:42
root@hugogd: /lib/systemd/sy
root@hugogd:/lib/systemd/system# systemctl isolate rescue.target
```

```
t. 19:42
Ubuntu_24.04 (Captura 1) [S'està executant] - Oracle VirtualBox
Fitxer Màquina Visualitza Entrada Dispositius Ajuda

You are in rescue mode. After logging in, type "journalctl -xb" to view
system logs, "systemctl reboot" to reboot, or "exit"
to continue bootup.

aPress Enter for maintenance
(or press Control-D to continue): _
```

POR DEFECTO:

Si hacemos un ls vemos que tiene una l delante eso es que es un enlace lo borraremos usando

```
root@hugogd:/lib/systemd/system# rm default.target
```


Y crearemos uno nuevo con el comando

```
root@hugogd:/lib/systemd/system# ln -s rescue.target default.target
root@hugogd:/lib/systemd/system# ls -l | grep default
lrwxrwxrwx 1 root root 13 de set. 17 19:45 default.target -> rescue.target
root@hugogd:/lib/systemd/system#
```

ahora haciendo un reboot podremos comprobar que se inicia usando rescue.target

Para volver a cambiar el target con el que iniciara tendremos que hacer lo contrario

- rm default.target
- ln -s graphical.target default.target

Para saber como esta un servicio podemos hacer un `systemctl status ssh` en este caso **SSH** que no lo tenemos

```
root@hugogd:/home/alumnat# systemctl status ssh
Unit ssh.service could not be found.
root@hugogd:/home/alumnat#
```

Una vez instalado con `apt install ssh` podremos volver a hacer un status para comprobar que lo tenemos.

```
root@hugogd:/home/alumnat# systemctl status ssh
○ ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/usr/lib/systemd/system/ssh.service; disabled; preset: enabled)
   Active: inactive (dead)
 TriggeredBy: ● ssh.socket
     Docs: man:sshd(8)
           man:sshd_config(5)
lines 1-6/6 (END)
```

El comando `systemctl is-enabled "servicio"` sirve para saber si el servicio esta en un target

```
root@hugogd:/# systemctl is-enabled cron
enabled
root@hugogd:/#
```

El comando `systemctl enabled "servicio"` servira para crear un enlace para que se encienda default el servicio con la arrancada del ordenador y `system disabled "servicio"` para quitar el enlace.

```
root@alumnat-VirtualBox:/etc/rc2.d# systemctl enable ssh
Synchronizing state of ssh.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable ssh
Created symlink /etc/systemd/system/sshd.service → /usr/lib/systemd/system/ssh.service.
Created symlink /etc/systemd/system/multi-user.target.wants/ssh.service → /usr/lib/systemd/system/ssh.service.
root@alumnat-VirtualBox:/etc/rc2.d#
```

```
root@alumnat-VirtualBox:/etc/rc2.d# systemctl disable ssh
Synchronizing state of ssh.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install disable ssh
Removed "/etc/systemd/system/multi-user.target.wants/ssh.service".
Removed "/etc/systemd/system/sshd.service".
Disabling 'ssh.service', but its triggering units are still active:
ssh.socket
root@alumnat-VirtualBox:/etc/rc2.d#
```

Para hacer que el ssh se habilite con un servicio en este caso **multi-user.target.wants**.

Primero deshabilitaremos el **cron** con el comando

```
root@hugogd:/etc/systemd/system/multi-user.target.wants# systemctl disable cron
Synchronizing state of cron.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install disable cron
Removed "/etc/systemd/system/multi-user.target.wants/cron.service".
root@hugogd:/etc/systemd/system/multi-user.target.wants#
```

Y habilitaremos **SSH** con el comando

```
root@hugogd:/etc/systemd/system/multi-user.target.wants# systemctl enable ssh
Synchronizing state of ssh.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable ssh
Created symlink /etc/systemd/system/ssh.service → /usr/lib/systemd/system/ssh.service.
Created symlink /etc/systemd/system/multi-user.target.wants/ssh.service → /usr/lib/systemd/system/ssh.service.
root@hugogd:/etc/systemd/system/multi-user.target.wants# reboot
```

Y reiniciaremos para comprobarlo

```
root@hugogd:/home/alumnat# systemctl status cron
○ cron.service - Regular background program processing daemon
   Loaded: loaded (/usr/lib/systemd/system/cron.service; disabled; preset: enabled)
   Active: inactive (dead)
     Docs: man:cron(8)
lines 1-4/4 (END)
```

```
root@hugogd:/home/alumnat# systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/usr/lib/systemd/system/ssh.service; enabled; preset: enabled)
   Active: active (running) since Wed 2025-09-17 20:08:46 CEST; 38s ago
 TriggeredBy: ● ssh.socket
     Docs: man:sshd(8)
           man:sshd_config(5)
   Process: 1007 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)
  Main PID: 1020 (sshd)
    Tasks: 1 (limit: 4615)
   Memory: 2.1M (peak: 2.3M)
      CPU: 37ms
   CGroup: /system.slice/ssh.service
           └─1020 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"

de set. 17 20:08:46 hugogd systemd[1]: Starting ssh.service - OpenBSD Secure Shell server:
de set. 17 20:08:46 hugogd sshd[1020]: Server listening on :: port 22.
de set. 17 20:08:46 hugogd systemd[1]: Started ssh.service - OpenBSD Secure Shell server:
lines 1-17/17 (END)
```

Para comprobar que estan sincronizado haremos un ls -l en /etc/rc5.d podremos ver que esta como K01 (kill)

```
root@hugogd:/etc/rc5.d# ls -l
total 0
lrwxrwxrwx 1 root root 14 d'abr. 24 2024 K01cron -> ../init.d/cron
lrwxrwxrwx 1 root root 27 d'abr. 24 2024 K01speech-dispatcher -> ../init.d/speech-dispatcher
lrwxrwxrwx 1 root root 17 d'abr. 24 2024 S01anacron -> ../init.d/anacron
lrwxrwxrwx 1 root root 16 d'abr. 24 2024 S01appport -> ../init.d/appport
lrwxrwxrwx 1 root root 19 d'abr. 24 2024 S01bluetooth -> ../init.d/bluetooth
lrwxrwxrwx 1 root root 26 d'abr. 24 2024 S01console-setup.sh -> ../init.d/console-setup
lrwxrwxrwx 1 root root 14 d'abr. 24 2024 S01cups -> ../init.d/cups
lrwxrwxrwx 1 root root 14 d'abr. 24 2024 S01dbus -> ../init.d/dbus
lrwxrwxrwx 1 root root 14 d'abr. 24 2024 S01gdm3 -> ../init.d/gdm3
lrwxrwxrwx 1 root root 21 d'abr. 24 2024 S01grub-common -> ../init.d/grub-common
lrwxrwxrwx 1 root root 20 d'abr. 24 2024 S01kerneloops -> ../init.d/kerneloops
lrwxrwxrwx 1 root root 17 d'abr. 24 2024 S01openvpn -> ../init.d/openvpn
lrwxrwxrwx 1 root root 18 d'abr. 24 2024 S01plymouth -> ../init.d/plymouth
lrwxrwxrwx 1 root root 15 d'abr. 24 2024 S01rsync -> ../init.d/rsync
lrwxrwxrwx 1 root root 15 d'abr. 24 2024 S01saned -> ../init.d/saned
lrwxrwxrwx 1 root root 23 d'abr. 24 2024 S01spice-vdagent -> ../init.d/spice-vdagent
lrwxrwxrwx 1 root root 13 de set. 17 19:56 S01ssh -> ../init.d/ssh
lrwxrwxrwx 1 root root 14 d'abr. 24 2024 S01sssd -> ../init.d/sssd
lrwxrwxrwx 1 root root 17 d'abr. 24 2024 S01sysstat -> ../init.d/sysstat
lrwxrwxrwx 1 root root 29 d'abr. 24 2024 S01unattended-upgrades -> ../init.d/unattended-upgrades
lrwxrwxrwx 1 root root 15 d'abr. 24 2024 S01uuidd -> ../init.d/uuidd
lrwxrwxrwx 1 root root 18 d'abr. 24 2024 S01whoopsie -> ../init.d/whoopsie
```

Si lo habilitamos y volvemos a hacer el ls -l podremos ver que sale como S01cron

```
root@hugogd:/etc/rc5.d# systemctl enable cron
Synchronizing state of cron.service with SysV service script with /usr/lib/systemd/systemd-sysv-install enable cron
Executing: /usr/lib/systemd/systemd-sysv-install enable cron
Created symlink /etc/systemd/system/multi-user.target.wants/cron.service → /usr/lib/systemd/systemd-sysv-install enable cron
root@hugogd:/etc/rc5.d# ls -l
total 0
lrwxrwxrwx 1 root root 27 d'abr. 24 2024 K01speech-dispatcher -> ../init.d/speech-dispatcher
lrwxrwxrwx 1 root root 17 d'abr. 24 2024 S01anacron -> ../init.d/anacron
lrwxrwxrwx 1 root root 16 d'abr. 24 2024 S01appport -> ../init.d/appport
lrwxrwxrwx 1 root root 19 d'abr. 24 2024 S01bluetooth -> ../init.d/bluetooth
lrwxrwxrwx 1 root root 26 d'abr. 24 2024 S01console-setup.sh -> ../init.d/console-setup
lrwxrwxrwx 1 root root 14 d'abr. 24 2024 S01cron -> ../init.d/cron
lrwxrwxrwx 1 root root 14 d'abr. 24 2024 S01cups -> ../init.d/cups
lrwxrwxrwx 1 root root 14 d'abr. 24 2024 S01dbus -> ../init.d/dbus
lrwxrwxrwx 1 root root 14 d'abr. 24 2024 S01gdm3 -> ../init.d/gdm3
lrwxrwxrwx 1 root root 21 d'abr. 24 2024 S01grub-common -> ../init.d/grub-common
lrwxrwxrwx 1 root root 20 d'abr. 24 2024 S01kerneloops -> ../init.d/kerneloops
lrwxrwxrwx 1 root root 17 d'abr. 24 2024 S01openvpn -> ../init.d/openvpn
lrwxrwxrwx 1 root root 18 d'abr. 24 2024 S01plymouth -> ../init.d/plymouth
lrwxrwxrwx 1 root root 15 d'abr. 24 2024 S01rsync -> ../init.d/rsync
lrwxrwxrwx 1 root root 15 d'abr. 24 2024 S01saned -> ../init.d/saned
lrwxrwxrwx 1 root root 23 d'abr. 24 2024 S01spice-vdagent -> ../init.d/spice-vdagent
lrwxrwxrwx 1 root root 13 de set. 17 19:56 S01ssh -> ../init.d/ssh
lrwxrwxrwx 1 root root 14 d'abr. 24 2024 S01sssd -> ../init.d/sssd
lrwxrwxrwx 1 root root 17 d'abr. 24 2024 S01sysstat -> ../init.d/sysstat
lrwxrwxrwx 1 root root 29 d'abr. 24 2024 S01unattended-upgrades -> ../init.d/unattended-upgrades
lrwxrwxrwx 1 root root 15 d'abr. 24 2024 S01uuidd -> ../init.d/uuidd
lrwxrwxrwx 1 root root 18 d'abr. 24 2024 S01whoopsie -> ../init.d/whoopsie
root@hugogd:/etc/rc5.d#
```

Con el systemd-analyze podremos ver cuanto esta tardando en arrancar el servicio del nivel en el que estamos en este caso el graphical

```
root@hugogd:/etc/rc5.d# systemd-analyze
Startup finished in 2.313s (kernel) + 6.692s (userspace) = 9.006s
graphical.target reached after 6.662s in userspace.
root@hugogd:/etc/rc5.d#
```

Y para ver lo que tardan todos los servicios podemos usar el comando systemd-analyze blame

```
root@hugogd:/etc/rc5.d# systemd-analyze blame
2.991s plymouth-quit-wait.service
2.258s snapd.seeded.service
2.189s snapd.service
1.370s NetworkManager.service
930ms snapd.apparmor.service
902ms systemd-resolved.service
876ms apport.service
824ms systemd-oomd.service
823ms systemd-binfmt.service
820ms systemd-timesyncd.service
691ms e2scrub_reap.service
632ms dev-sda2.device
479ms dev-loop9.device
474ms dev-loop8.device
468ms dev-loop10.device
467ms dev-loop11.device
464ms dev-loop12.device
464ms dev-loop13.device
451ms accounts-daemon.service
379ms gnome-remote-desktop.service
334ms rsyslog.service
320ms power-profiles-daemon.service
315ms polkit.service
310ms udisks2.service
288ms apparmor.service
283ms gpu-manager.service
276ms ModemManager.service
256ms NetworkManager-wait-online.service
230ms grub-common.service
```

